

1 15A NCAC 02N .0201 is proposed for readoption as follows:

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3 **SUBCHAPTER 02N – CRITERIA AND STANDARDS APPLICABLE TO UNDERGROUND STORAGE**  
4 **TANKS**

5

6 **SECTION .0200 - PROGRAM SCOPE AND INTERIM PROHIBITION**

7

8 **15A NCAC 02N .0201 APPLICABILITY**

9 The regulations governing "Applicability" set forth in 40 CFR 280.10 (Subpart A) are hereby incorporated by  
10 ~~reference,~~reference excluding any subsequent amendments and editions, except that:

- 11 (1) ~~Underground~~underground storage tanks (UST) containing de minimis concentrations of regulated  
12 substances are also subject to the requirements for permanent closure in Rules .0802 and .0803 of  
13 this Subchapter; and  
14 (2) UST systems that store fuel solely for use by emergency power generators installed on or after  
15 November 1, 2007 shall also meet the requirements of Section .0900 of this Subchapter.

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17 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

18 *Eff. January 1, 1991;*

19 *Amended Eff. June 1, 2017; November 1, ~~2007, 2007;~~*

20 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0202 is proposed for readoption as follows:

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3 **15A NCAC 02N .0202 INSTALLATION REQUIREMENTS FOR PARTIALLY EXCLUDED UST**  
4 **SYSTEMS**

5 The regulations governing "Installation requirements for partially excluded UST systems" set forth in 40 CFR 280.11  
6 (Subpart A) are hereby incorporated by ~~reference~~ reference excluding any subsequent amendments and editions.

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8 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

9 *Eff. January 1, 1991;*

10 *Amended Eff. June 1, ~~2017~~; 2017;*

11 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0203 is proposed for readoption with substantive changes as follows:

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3 **15A NCAC 02N .0203 DEFINITIONS**

4 (a) The regulations governing "Definitions" set forth in 40 CFR 280.12 (Subpart A) are hereby incorporated by  
5 ~~reference,~~reference excluding any subsequent amendments and editions, except that:

6 (1) ~~40 CFR 280.12~~ "UST system" shall be changed to read "'UST system' or 'Tank system' means an  
7 underground storage tank, connected underground piping, underground ancillary equipment,  
8 dispenser, and containment system, if any";

9 (2) ~~40 CFR 280.12~~ "Class A operator" shall not be incorporated by reference;

10 (3) ~~40 CFR 280.12~~ "Class B operator" shall not be incorporated by reference;

11 (4) ~~40 CFR 280.12~~ "Class C operator" shall not be incorporated by reference;

12 (5) ~~40 CFR 280.12~~ "Replaced" shall not be incorporated by reference; and

13 (6) ~~40 CFR 280.12~~ "Secondary containment or secondarily contained" shall not be incorporated by  
14 reference.

15 ~~(b) This Rule shall apply throughout this Subchapter except that:~~

16 ~~(1) "Implementing agency" shall mean the "Division of Waste Management."~~

17 ~~(2) "Division" shall mean the "Division of Waste Management."~~

18 ~~(3) "Director" and "Director of the Implementing Agency" shall mean the "Director of the Division of  
19 Waste Management."~~

20 ~~(b)~~ The following definitions shall apply throughout this Subchapter:

21 (1) "De minimis concentration" means the amount of a regulated substance that does not exceed one  
22 percent ~~(4%)~~ of the capacity of a tank, excluding piping and vent lines.

23 ~~(2)~~ "Director" and "Director of the Implementing Agency" means the "Director of the Division of Waste  
24 Management."

25 ~~(3)~~ "Division" means the "Division of Waste Management."

26 ~~(2)(4)~~ "Expediently emptied after use" means the removal of a regulated substance from an emergency  
27 spill or overflow containment UST system within 48 hours after use of the UST system has ceased.

28 ~~(5)~~ "Implementing agency" means the "Division of Waste Management."

29 ~~(3)(6)~~ "Previously closed" means:

30 (A) An UST system from which all regulated substances had been removed, the tank had been  
31 filled with a solid inert material, and tank openings had been sealed or capped prior to  
32 December 22, 1988; or

33 (B) An UST system removed from the ground prior to December 22, 1988.

34 ~~(4)(7)~~ "Temporarily closed" means:

35 (A) An UST system from which the product has been removed such that not more than one  
36 inch of product and residue are present in any portion of the tank; or

1 (B) Any UST system in use as of December 22, 1988 that complies with the provisions of ~~15A~~  
2 ~~NCAC 02N .0801~~ Rule .0801 of this Subchapter.

3 ~~(5)~~(8) "Secondary containment" means a method or combination of methods of release detection for UST  
4 systems that includes:

5 (A) For tank installations or replacements completed prior to November 1, 2007, double-walled  
6 construction and external ~~liners (including vaults);~~ liners, including vaults;

7 (B) For underground piping installations or replacements completed prior to November 1,  
8 2007, trench liners and double-walled construction;

9 (C) For tank installations or replacements completed on or after November 1, 2007, double-  
10 walled construction and interstitial release detection monitoring that meet the requirements  
11 of Section .0900 of this Subchapter; and

12 (D) For all other UST system component installations or replacements completed on or after  
13 November 1, 2007, double-walled construction or containment within a liquid-tight sump  
14 and interstitial release detection monitoring that meet the requirements of Section .0900 of  
15 this Subchapter. Upon written request, the Division shall approve other methods of  
16 secondary containment for connected piping that it determines are capable of meeting the  
17 requirements of Section .0900 of this Subchapter.

18 ~~(6)~~(9) "Interstitial space" means the opening formed between the inner and outer wall of an UST system  
19 with double-walled construction or the opening formed between the inner wall of a containment  
20 sump and the UST system component that it contains.

21 ~~(7)~~(10) "Replace" means to remove an UST system or UST system component and to install another UST  
22 system or UST system component in its place.

23 ~~(8)~~(11) "UST system component or tank system component" means any part of an UST system.  
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25 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

26 *Eff. January 1, 1991;*

27 *Temporary Amendment Eff. January 7, 1991 For a Period of 180 Days to Expire on July 6, 1991;*

28 *Temporary Amendment Expired July 6, 1991;*

29 *Amended Eff. June 1, 2017; November 1, ~~2007~~2007;*

30 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0301 is proposed for reoption with substantive changes as follows:

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**15A NCAC 02N .0301 PERFORMANCE STANDARDS FOR UST SYSTEM INSTALLATIONS OR REPLACEMENTS COMPLETED AFTER DECEMBER 22, 1988 AND BEFORE NOVEMBER 1, 2007**

(a) The regulations governing "Performance standards for new UST systems" set forth in 40 CFR 280.20 (Subpart B) are hereby incorporated by ~~reference,~~reference excluding any subsequent amendments and editions, except that:

- (1) 40 CFR 280.20(a)(4) shall not be incorporated by reference;
- (2) 40 CFR 280.20(b)(3) shall not be incorporated by reference;~~and~~
- (3) UST system or UST system component installations or replacements completed on or after November 1, 2007, shall also meet the requirements of Section .0900 of this ~~Subchapter.~~Subchapter;  
and
- (4) Note to Paragraph (d) of 40 CFR 280.20 is amended to include Petroleum Equipment Institute Publication RP1000, "Recommended Practices for the Installation of Marina Fueling Systems."

(b) No UST system shall be installed within 100 feet of a well serving a public water system, as defined in G.S. 130A-313(10), or within 50 feet of any other well supplying water for human consumption.

(c) An UST system existing on January 1, 1991, and located within the area described in Paragraph (b) of this Rule may be replaced with a new tank meeting the performance standards of 40 CFR 280.20 and the secondary containment provisions of 40 CFR 280.42(a) through (d). The replacement UST system shall not be located nearer to the water supply source than the UST system being replaced.

(d) Except as prohibited in Paragraph (b) of this Rule, an UST system shall meet the requirements for secondary containment described at 40 CFR 280.42(a) through (d):

- (1) Within 500 feet of a well serving a public water supply or within 100 feet of any other well supplying water for human consumption; or
- (2) Within 500 feet of any surface water classified as High Quality ~~Water (HQW),~~Waters (HQW);  
Outstanding Resource water (ORW),Waters (ORW); ~~WS I, WS II or SA.~~Water Supply I – Natural (WS-I); Water Supply II – Undeveloped (WS-II); Market Shellfishing, Salt Water (SA).

(e) An UST system or UST system component installation completed on or after November 1, 2007, to replace an UST system or UST system component located within the areas described in Paragraphs (b), (c), or (d) of this Rule shall meet the requirements of Section .0900 of this Subchapter.

~~(f) 40 CFR 280.20 Note to paragraph (d) is amended to include Petroleum Equipment Institute Publication RP1000, "Recommended Practices for the Installation of Marina Fueling Systems."~~

*History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~  
Eff. January 1, 1991;  
Amended Eff. June 1, 2017; November 1, ~~2007,~~2007;  
Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0302 is proposed for readoption as follows:

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3 **15A NCAC 02N .0302 UPGRADING OF EXISTING UST SYSTEMS AFTER DECEMBER 22, 1998 AND**  
4 **BEFORE NOVEMBER 1, 2007**

5 (a) The regulations governing "Upgrading of existing UST systems" set forth in 40 CFR 280.21 (Subpart B) are  
6 hereby incorporated by ~~reference,~~reference excluding any subsequent amendments and editions, except that:

7 (1) existing UST systems located within the areas described in Rule .0301(b) and (d) of this Section  
8 shall be upgraded in accordance with the provisions of 40 CFR 280.21(b) through (d) and shall be  
9 provided with secondary containment as described in 40 CFR 280.42(a) through (d). An UST system  
10 upgraded shall not be located nearer to a source of drinking water supply than its location prior to  
11 being upgraded; and

12 (2) 40 CFR 280.21 Note to paragraph b(1)(ii)(C) shall not be incorporated by reference.

13 (b) Owners and operators shall submit notice of the upgrading of any UST system conducted in accordance with the  
14 requirements of 40 CFR 280.21 to the Division, within 30 days following completion of the upgrading activity. The  
15 notice shall include form "UST-8 Notification of Activities Involving Underground Storage Tank Systems," which is  
16 set forth in Rule .0303(1)(b) of this Section.

17 (c) UST systems upgraded in accordance with 40 CFR 280.21 prior to January 1, 1991, are in compliance with this  
18 Rule.

19 (d) An UST system or UST system component installation completed on or after November 1, 2007, to upgrade or  
20 replace an UST system or UST system component described in Paragraph (a) of this Rule shall meet the performance  
21 standards of Section .0900 of this Subchapter.

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23 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

24 *Eff. January 1, 1991;*

25 *Amended Eff. June 1, 2017; November 1, ~~2007, 2007;~~*

26 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0303 is proposed for readoption with substantive changes as follows:

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3 **15A NCAC 02N .0303 NOTIFICATION REQUIREMENTS**

4 The regulations governing "Notification requirements" set forth in 40 CFR 280.22 (Subpart B) are hereby incorporated  
5 by ~~reference,~~reference excluding any subsequent amendments and editions, except that:

6 (1) Owners and operators of an UST system shall submit to the Division, on forms provided by the  
7 Division, a notice of intent to conduct any of the following activities:

8 (a) notice of installation of a new UST system or UST system component shall be in  
9 accordance with Rule .0902 of this Subchapter;

10 (b) notice of installation of a leak detection device installed outside of the outermost wall of  
11 the tank and piping, such as vapor detection or groundwater monitoring devices, shall be  
12 given at least 30 days before the activity begins. The notice shall be provided on form  
13 "UST-8 Notification of Activities Involving Underground Storage Tank Systems," which  
14 may be accessed free of charge at [http://deq.nc.gov/about/divisions/waste-](http://deq.nc.gov/about/divisions/waste-management/underground-storage-tanks-section/forms)  
15 [management/underground-storage-tanks-section/forms](http://deq.nc.gov/about/divisions/waste-management/underground-storage-tanks-section/forms). Form "UST-8 Notification of  
16 Activities Involving Underground Storage Tank Systems" shall include:

17 (i) the same information provided in Appendix I to 40 CFR 280, except that Sections  
18 X (2) and (3), and Section XI shall not be included on the form;

19 (ii) operator identification and contact information;

20 (iii) number of tank compartments and tank compartment identity, capacity, and  
21 product stored;

22 (iv) identity of tanks that are manifold together with piping;

23 (v) stage I Vapor Recovery equipment type and installation date;

24 (vi) corrosion protection methods for metal flexible connectors, submersible pumps,  
25 and riser pipes;

26 (vii) UST system and UST system component installation date, manufacturer, model,  
27 and leak detection monitoring method;

28 (viii) spill containment equipment installation date, manufacturer, model, and leak  
29 detection monitoring method;

30 (ix) overfill prevention equipment installation date, manufacturer, and model; and

31 (x) leak detection equipment manufacturer and model;

32 (c) notice of permanent closure or change-in-service of an UST system shall be given at least  
33 30 days before the activity ~~begins, unless a North Carolina Professional Engineer or North~~  
34 ~~Carolina Licensed Geologist retained by the owner or operator to provide professional~~  
35 ~~services for the tank closure or change in service submits the notice. A North Carolina~~  
36 ~~Professional Engineer or North Carolina Licensed Geologist may submit the notice at least~~  
37 ~~five business days before the activity begins.~~begins. The notice shall be provided on form

1 "UST-3 Notice of Intent: UST Permanent Closure or Change-in-Service," which may be  
2 accessed free of charge at <http://deq.nc.gov/about/divisions/waste->  
3 [management/underground-storage-tanks-section/forms](http://deq.nc.gov/about/divisions/waste-management/underground-storage-tanks-section/forms). Form "UST-3 Notice of Intent:  
4 UST Permanent Closure or Change-in-Service" shall include:

- 5 (i) owner identification and contact information;
- 6 (ii) site location information;
- 7 (iii) site contact information;
- 8 (iv) contractor and consultant identification and contact information;
- 9 (v) identity of UST systems to be permanently closed or that will undergo a change-  
10 in-service;
- 11 (vi) for permanent closure, the proposed method of UST System closure – removal or  
12 fill in-place;
- 13 (vii) for a change-in-service, the new contents to be stored;
- 14 (viii) proposed UST system closure or change-in-service date; and
- 15 (ix) signature of UST system owner;

16 (d) notice of a change of ownership of a UST system pursuant to 40 CFR 280.22(b) shall be  
17 provided on form "UST-15 Change of Ownership of UST System(s)," which may be  
18 accessed free of charge at <http://deq.nc.gov/about/divisions/waste->  
19 [management/underground-storage-tanks-section/forms](http://deq.nc.gov/about/divisions/waste-management/underground-storage-tanks-section/forms). Form "UST-15 Change of  
20 Ownership of UST System(s)" shall include:

- 21 (i) the same information provided in Appendix II to 40 CFR 280;
- 22 (ii) site location information;
- 23 (iii) notarized signature of the new owner of an UST system;
- 24 (iv) name and notarized signature of the previous owner of an UST system; and
- 25 (v) appended information shall include documentation of an UST system ownership  
26 transfer such as a property deed or bill of ~~sale and for a sale~~. A person signing the  
27 form on behalf of another, another shall provide documentation they can legally  
28 sign in such capacity, such as an officer of a corporation, administrator of an  
29 estate, representative of a public agency, or as having power of ~~attorney~~;  
30 ~~documentation showing that the person can legally sign in such capacity~~. attorney.

31 (2) Owners and operators of UST systems that were in the ground on or after May 8, 1986, were required  
32 to notify the Division in accordance with the Hazardous and Solid Waste Amendments of 1984,  
33 Public Law 98-616, on a form published by the Environmental Protection Agency on November 8,  
34 1985 (50-FR 46602) 46602), unless notice was given pursuant to Section 103(c) of CERCLA.  
35 Owners or operators who have not complied with the notification requirements shall complete the  
36 appropriate form "UST-8 Notification of Activities Involving Underground Storage Tank Systems"  
37 and submit the form to the Division.

- 1 (3) Beginning October 24, 1988, any person who sells a tank intended to be used as an UST shall notify  
2 the purchaser of such tank of the owner's notification obligations under Item (1) of this Rule.
- 3 (4) Any reference in 40 CFR Part 280 to the notification form in Appendix I shall refer to the North  
4 Carolina notification form "UST-8 Notification of Activities Involving Underground Storage Tank  
5 ~~Systems~~Systems."

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7 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*  
8 *Eff. January 1, 1991;*  
9 *Amended Eff. June 1, ~~2017~~2017;*  
10 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0304 is proposed for reoption with substantive changes as follows:

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3 **15A NCAC 02N .0304 IMPLEMENTATION SCHEDULE FOR PERFORMANCE STANDARDS FOR**  
4 **NEW UST SYSTEMS AND UPGRADING REQUIREMENTS FOR EXISTING**  
5 **UST SYSTEMS LOCATED IN AREAS DEFINED IN RULE .0301(d)**

6 (a) The following implementation schedule shall apply only to owners and operators of UST systems located within  
7 areas described in Rule .0301(d) of this Section. This implementation schedule shall govern tank owners and operators  
8 in complying with the secondary containment requirements set forth in Rule .0301(d) of this Section for new UST  
9 systems and the secondary containment requirements set forth in Rule .0302(a) of this Section for existing UST  
10 systems.

- 11 (1) All new UST systems and replacements to an UST system shall be provided with secondary  
12 containment as of April 1, 2001.
- 13 (2) All steel or metal connected piping and ancillary equipment of an UST, regardless of date of  
14 installation, shall be provided with secondary containment as of January 1, 2005.
- 15 (3) All fiberglass or non-metal connected piping and ancillary equipment of an UST, regardless of date  
16 of installation, shall be provided with secondary containment as of January 1, 2008.
- 17 (4) All UST systems installed on or before January 1, 1991 shall be provided with secondary  
18 containment as of January 1, 2008.
- 19 (5) All USTs installed after January 1, 1991, and prior to April 1, 2001, shall be provided with secondary  
20 containment as of January 1, 2020. Owners of USTs located within 100 to 500 feet of a public water  
21 supply well, if the well serves only a single facility and is not a community water system, may seek  
22 a variance in accordance with Paragraphs (d) through (i) of this Rule.

23 (b) All owners and operators of UST systems shall implement the following enhanced leak detection monitoring as  
24 of April 1, 2001. The enhanced leak detection monitoring shall consist of the following:

- 25 (1) An automatic tank gauging system for each UST;
- 26 (2) An electronic line leak detector for each pressurized piping system;
- 27 (3) One 0.1 gallon per hour (gph) test per month or one 0.2 gph test per week on each UST system;
- 28 (4) A line tightness test capable of detecting a leak rate of 0.1 gph, once per year for each suction piping  
29 system. No release detection shall be required for suction piping that is designed and constructed in  
30 accordance with 40 CFR 280.41(b)(1)(ii)(A) through (E);
- 31 (5) If the UST system is located within 500 feet of a public water supply well or within 100 feet of any  
32 other well supplying water for human consumption, owners or operators shall sample the water  
33 supply well ~~at least~~ once per year. The sample collected from the well shall be characterized in  
34 accordance with:
  - 35 (A) Standard Method 6200B, Volatile Organic Compounds Purge and Trap Capillary-Column  
36 Gas Chromatographic/Mass Spectrometric Method, which is incorporated by reference  
37 including subsequent amendments and editions, and may be obtained at

1 <http://www.standardmethods.org/> at a cost of ~~sixty-nine dollars (\$69.00);~~seventy-five  
2 dollars (\$75.00);

3 (B) EPA Method ~~625,625.1~~, Base/Neutrals and Acids, which is incorporated by reference  
4 including subsequent amendments and editions, and may be accessed free of charge at  
5 [http://water.epa.gov/scitech/methods/cwa/organics/upload/2007\\_07\\_10\\_methods\\_method](http://water.epa.gov/scitech/methods/cwa/organics/upload/2007_07_10_methods_method)  
6 [\\_organics\\_625.pdf](#); and

7 (C) If a waste oil UST system is present that does not meet the requirements for secondary  
8 containment in accordance with 40 CFR 280.42(b)(1) through (4), the sample shall also be  
9 analyzed for lead and chromium using Method ~~6010C,6010D~~, Inductively Coupled  
10 ~~Plasma-Atomie~~ Plasma-Optical Emission Spectrometry, which is incorporated by  
11 reference including subsequent amendments and editions, and may be accessed free of  
12 charge at <http://www.epa.gov/epawaste/hazard/testmethods/sw846/pdfs/6010e.pdf>  
13 <https://www.epa.gov/sites/production/files/2015-12/documents/6010d.pdf> or Method  
14 ~~6020A,6020B~~, Inductively Coupled Plasma-Mass Spectrometry, which is incorporated by  
15 reference including subsequent amendments and editions, and may be accessed free of  
16 charge at <http://www.epa.gov/epawaste/hazard/testmethods/sw846/pdfs/6020a.pdf>;  
17 <https://www.epa.gov/sites/production/files/2015-12/documents/6020b.pdf>; and

18 (6) The first sample collected in accordance with Subparagraph (b)(5) of this Rule shall be collected  
19 and the results received by the Division by October 1, 2000, and yearly thereafter.

20 (c) An UST system or UST system component installation completed on or after November 1, 2007, to upgrade or  
21 replace an UST system or UST system component as required in Paragraph (a) of this Rule shall meet the performance  
22 standards of Section .0900 of this Subchapter.

23 (d) The Environmental Management Commission may grant a variance from the secondary containment requirements  
24 in Subparagraph (a)(5) of this Rule for USTs located within 100 to 500 feet of a public water supply well if the well  
25 serves only a single facility and is not a community water system. Any request for a variance shall be in writing by  
26 the owner of the UST for which the variance is sought. The request for variance shall be submitted to the Director,  
27 Division of Waste Management, 1646 Mail Service Center, Raleigh, NC 27699-1646. The Environmental  
28 Management Commission shall grant the variance if the Environmental Management Commission finds facts to  
29 support the following conclusions:

- 30 (1) The variance will not endanger human health and welfare or groundwater; and  
31 (2) UST systems are operated and maintained in compliance with 40 CFR Part 280, Article 21A of G.S.  
32 143B, and the rules in this Subchapter.

33 (e) The Environmental Management Commission may require the variance applicant to submit such information as  
34 the Environmental Management Commission deems necessary to make a decision to grant or deny the variance.  
35 Information that may be requested includes the following:

- 36 (1) Water supply well location, depth, construction specifications, and sampling results;  
37 (2) Groundwater depth and flow direction; and

- 1           (3)       Leak detection monitoring and testing results.
- 2 (f) The Environmental Management Commission may impose such conditions on a variance as the Environmental  
3 Management Commission deems necessary to protect human health and welfare and groundwater. Conditions for a  
4 variance may include the following:
- 5           (1)       Increased frequency of leak detection and leak prevention monitoring and testing;
- 6           (2)       Periodic water supply well sampling; and
- 7           (3)       Increased reporting and recordkeeping.
- 8 (g) The findings of fact supporting any variance under this Rule shall be in writing and made part of the variance.
- 9 (h) The Environmental Management Commission may rescind a variance that was previously granted if the  
10 Environmental Management Commission discovers through inspection or reporting that the conditions of the variance  
11 are not met or that the facts no longer support the conclusions in Subparagraphs (d)(1) and (2) of this Rule.
- 12 (i) An owner of an UST system who is aggrieved by a decision of the Environmental Management Commission to  
13 deny or rescind a variance or to conditionally grant a variance may commence a contested case by filing a petition  
14 pursuant to G.S. 150B-23 within 60 days after receipt of the decision.

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16 *History Note:*     *Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h);*  
17                     *Temporary Adoption Eff. May 1, 2000;*  
18                     *Eff. April 1, 2001;*  
19                     *Amended Eff. June 1, 2017; June 1, 2015; November 1, ~~2007-2007~~;*  
20                     *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0401 is proposed for readoption as follows:

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3 **15A NCAC 02N .0401 SPILL AND OVERFILL CONTROL**

4 The regulations governing "Spill and overfill control" set forth in 40 CFR 280.30 (Subpart C) are hereby incorporated  
5 by ~~reference~~-reference excluding any subsequent amendments and editions.

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7 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

8 *Eff. January 1, 1991;*

9 *Amended Eff. June 1, ~~2017~~, 2017;*

10 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0402 is proposed for readoption as follows:

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3 **15A NCAC 02N .0402 OPERATION AND MAINTENANCE OF CORROSION PROTECTION**

4 The regulations governing "Operation and maintenance of corrosion protection" set forth in 40 CFR 280.31 (Subpart  
5 C) are hereby incorporated by ~~reference.~~reference excluding any subsequent amendments and editions.

6

7 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

8 *Eff. January 1, 1991;*

9 *Amended Eff. June 1, ~~2017;~~2017;*

10 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0403 is proposed for readoption as follows:

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3 **15A NCAC 02N .0403 COMPATIBILITY**

4 The regulations governing "Compatibility" set forth in 40 CFR 280.32 (Subpart C) are hereby incorporated by  
5 ~~reference.~~reference excluding any subsequent amendments and editions.

6

7 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

8 *Eff. January 1, 1991;*

9 *Amended Eff. June 1, ~~2017;~~2017;*

10 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0404 is proposed for re adoption as follows:

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3 **15A NCAC 02N .0404 REPAIRS ALLOWED**

4 The regulations governing "Repairs Allowed" set forth in 40 CFR 280.33 (Subpart C) are hereby incorporated by  
5 ~~reference, reference excluding any subsequent amendments and editions,~~ except that the first sentence of 40 CFR  
6 280.33(d) shall be read: "Repairs to secondary containment areas of tanks and piping used for interstitial monitoring  
7 and to containment sumps used for interstitial monitoring of piping shall have the secondary containment tested for  
8 tightness as directed by the Division within 30 days following the date of completion of the repair." When determining  
9 the required test method, the Division may consider the following:

- 10 (1) installation date of the repaired UST system component;
- 11 (2) test methods that are third-party certified as being capable of detecting a 0.10 gallon per hour leak  
12 rate with a probability of detection (Pd) of at least 95 percent and a probability of false alarm (Pfa)  
13 of no more than 5 percent;
- 14 (3) codes of practice developed by a nationally recognized association;
- 15 (4) written manufacturer's guidelines for installation testing and testing after repairs are conducted; and
- 16 (5) test methods developed by an independent laboratory.

17

18 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*  
19 *Eff. January 1, 1991;*  
20 *Amended Eff. June 1, ~~2017, 2017;~~*  
21 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0405 is proposed for reoption as follows:

2

3 **15A NCAC 02N .0405 REPORTING AND RECORDKEEPING**

4 (a) The regulations governing "Reporting and recordkeeping" set forth in 40 CFR 280.34 (Subpart C) are hereby  
5 incorporated by ~~reference~~reference excluding any subsequent amendments and editions.

6 (b) Owners and operators shall submit to the Division, within 30 days following completion, results of the site  
7 investigation conducted:

8 (1) at permanent closure or change-in-service. The results of the site investigation for permanent closure  
9 or change-in-service shall be reported in a format that includes the following:

- 10 (A) site location information;
- 11 (B) identification and contact information for the owner, operator, property owner, consultant,  
12 contractor, and analytical laboratory;
- 13 (C) the same information provided in Appendix I to 40 CFR Part 280, Section X;
- 14 (D) information about any release discovered, including discovery date, estimated quantity of  
15 petroleum or hazardous substance released, and the cause and source;
- 16 (E) information about any previous releases at the site, including owner or operator at the time  
17 of the release, source, cause, and location relative to the current release;
- 18 (F) description of site characteristics, such as use of the site and surrounding area, drinking  
19 water supplies, presence and location of water supply wells and surface water, depth to and  
20 nature of bedrock, depth to groundwater, and direction of groundwater flow;
- 21 (G) date of permanent closure or change-in-service of an UST system and last contents stored;
- 22 (H) procedures and methods used to clean an UST system prior to permanent closure or  
23 change-in-service;
- 24 (I) procedures and methods used to permanently close an UST system;
- 25 (J) description of condition of tank, piping, and dispenser;
- 26 (K) documentation of disposal of tank and its contents;
- 27 (L) description of condition of excavation, volume of soil excavation, soil type encountered,  
28 type and source of backfill used, and any groundwater, free product, or bedrock  
29 encountered in the excavation;
- 30 (M) method of temporary storage, sampling, and treatment or disposal of excavated soil;
- 31 (N) procedures and methods used for sample collection, field screening, and laboratory  
32 analysis;
- 33 (O) quality assurance and quality control procedures and methods for decontamination of field  
34 and sampling equipment and for sample handling, preservation, and transportation;
- 35 (P) field screening results and analytical results for samples collected, comparison of analytical  
36 results to standards set forth in 15A NCAC 02L, and the presence and quantity of any free  
37 product; and

- 1 (Q) maps and figures showing the site and surrounding topography, current and former UST  
2 system locations, surface water, water supply wells, monitoring wells, types and locations  
3 of samples, analytical results for samples, ground water flow direction, geologic boring  
4 logs, and monitoring well construction specifications; or
- 5 (2) to insure compliance with the requirements for installation of vapor monitoring and groundwater  
6 monitoring devices, as specified in 40 CFR 280.43(e)(1) through (e)(4) and 280.43(f)(1) through  
7 (f)(5), respectively. The site investigation shall be conducted in accordance with Rule .0504 of this  
8 Subchapter.
- 9 (c) Owners shall submit to the Division, on forms provided by the Division and within 30 days following completion:
- 10 (1) A description of the upgrading of any UST system conducted in accordance with requirements of  
11 40 CFR 280.21. The description of upgrading shall be provided on form "UST-8 Notification of  
12 Activities Involving Underground Storage Tank Systems," which is set forth in Rule .0303(1)(b) of  
13 this Section;
- 14 (2) Certification of the proper operation of a corrosion protection system upon completion of testing in  
15 compliance with 40 CFR 280.31; and
- 16 (A) Certification of proper operation and testing of a galvanic corrosion protection system shall  
17 be provided on form "UST-7A Cathodic Protection System Evaluation for Galvanic  
18 (Sacrificial Anode) Systems," which may be accessed free of charge at  
19 [http://deq.nc.gov/about/divisions/waste-management/underground-storage-tanks-](http://deq.nc.gov/about/divisions/waste-management/underground-storage-tanks-section/forms)  
20 [section/forms](http://deq.nc.gov/about/divisions/waste-management/underground-storage-tanks-section/forms). Form "UST-7A Cathodic Protection System Evaluation for Galvanic  
21 (Sacrificial Anode) Systems" shall include:
- 22 (i) owner identification and contact information;
- 23 (ii) site location information;
- 24 (iii) reason that a corrosion protection system was evaluated, including a routine test  
25 within six months of corrosion protection system installation, a routine test every  
26 three years following corrosion protection system installation, or a test following  
27 a repair or modification;
- 28 (iv) corrosion protection tester's name, contact information, corrosion protection tester  
29 certification number, certifying organization, and certification type;
- 30 (v) corrosion protection tester's evaluation, including pass, fail, or inconclusive;
- 31 (vi) corrosion expert's name, address, contact information, National Association of  
32 ~~Corrosion~~ Corrosion Engineers International Institute certification number, and  
33 certification type or Professional Engineer number, state, and specialty;
- 34 (vii) corrosion expert's evaluation, including pass or fail;
- 35 (viii) criteria for evaluation, including 850 millivolt on, 850 millivolt instant off, or 100  
36 millivolt polarization;
- 37 (ix) action required as a result of the evaluation, including none, or repair and retest;

- 1 (x) description of UST system, including tank identity, product stored, tank capacity,  
2 tank and piping construction material, and presence of metal flexible connectors;  
3 (xi) description of any repair or modification made to the corrosion protection system;  
4 (xii) site drawing, including the UST systems, on-site buildings, adjacent streets,  
5 anodes and wires, reference electrode placement, and test stations;  
6 (xiii) corrosion protection continuity survey, including location of fixed remote  
7 reference electrode placement, structures evaluated using fixed remote instant-off  
8 voltages or point-to-point voltage differences, and if structures are continuous or  
9 isolated; and  
10 (xiv) corrosion protection system survey, including locations of remote reference  
11 electrode, structure evaluated, structure contact point, local reference cell  
12 placement, local voltage, remote voltage, and if tested structure passed, failed, or  
13 was inconclusive relative to the criteria for evaluation.
- 14 (B) Certification of proper operation and testing of an impressed current corrosion protection  
15 system shall be provided on form "UST-7B Cathodic Protection System Evaluation for  
16 Impressed Current Systems," which may be accessed free of charge at  
17 <http://deq.nc.gov/about/divisions/waste-management/underground-storage-tanks->  
18 [section/forms](http://deq.nc.gov/about/divisions/waste-management/underground-storage-tanks-). Form "UST-7B Cathodic Protection System Evaluation for Impressed  
19 Current Systems" shall include:  
20 (i) owner identification and contact information;  
21 (ii) site location information;  
22 (iii) reason that a corrosion protection system was evaluated, including a routine test  
23 within six months of corrosion protection system installation, a routine test every  
24 three years following corrosion protection system installation, or a test following  
25 a repair or modification;  
26 (iv) corrosion protection tester's name, contact information, corrosion protection tester  
27 certification number, certifying organization, and certification type;  
28 (v) corrosion protection tester's evaluation, including pass, fail, or inconclusive;  
29 (vi) corrosion expert's name, address, contact information, National Association of  
30 ~~Corrosion~~ Corrosion Engineers International Institute certification number, and  
31 certification type or Professional Engineer number, state, and specialty;  
32 (vii) corrosion expert's evaluation, including pass or fail;  
33 (viii) criteria for evaluation, including 850 millivolt instant off or 100 millivolt  
34 polarization;  
35 (ix) action required as a result of the evaluation, including none or repair and retest;  
36 (x) description of UST system, including tank identity, product stored, tank capacity,  
37 tank and piping construction material, and presence of metal flexible connectors;

- 1 (xi) impressed current rectifier data, including rectifier manufacturer, model, serial  
2 ~~number~~number, rated DC output, shunt size, shunt factor, hour meter, tap settings,  
3 DC output (gauge), and DC output (multimeter);  
4 (xii) impressed current positive and negative circuit measurements;  
5 (xiii) description of any repair or modifications made to the corrosion protection  
6 system;  
7 (xiv) site drawing, including the UST systems, on-site buildings, adjacent streets,  
8 anodes and wires, reference electrode placement, and test stations;  
9 (xv) corrosion protection continuity survey, including location of fixed remote  
10 reference electrode placement, structures evaluated using fixed remote instant-off  
11 voltages or point-to-point voltage differences, and if structures are continuous or  
12 isolated; and  
13 (xvi) corrosion protection system survey, including structure evaluated, structure  
14 contact point, reference cell placement, on voltage, instant off voltage, 100  
15 millivolt polarization ending voltage and voltage change, and if the tested  
16 structure passed or failed relative to the criteria for evaluation.

17 (3) Certification of compliance with the requirements for leak detection specified in 40 CFR 280.40, 40  
18 CFR 280.41, 40 CFR 280.42, 40 CFR 280.43, and 40 CFR 280.44. The certification shall specify  
19 the leak detection method and date of compliance for each UST. The certification of compliance  
20 with leak detection requirements shall be provided on form "UST-8 Notification of Activities  
21 Involving Underground Storage Tank Systems," which is set forth in Rule .0303(1)(b) of this  
22 Section.

23  
24 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*  
25 *Eff. January 1, 1991;*  
26 *Amended Eff. June 1, ~~2017~~, 2017;*  
27 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0406 is proposed for amendment as follows:

2

3 **15A NCAC 02N .0406 PERIODIC TESTING OF SPILL PREVENTION EQUIPMENT AND**  
4 **CONTAINMENT SUMPS USED FOR INTERSTITIAL MONITORING OF**  
5 **PIPING AND PERIODIC INSPECTION OF OVERFILL PREVENTION**  
6 **EQUIPMENT**

7 The regulations governing "Periodic testing of spill prevention equipment and containment sumps used for interstitial  
8 monitoring of piping and periodic inspection of overfill prevention equipment" set forth in 40 CFR 280.35 (Subpart  
9 C) are hereby incorporated by ~~reference,~~reference excluding any subsequent amendments and editions, except ~~that~~  
10 that:

11 (1) UST system or UST system component installations or replacements completed on or after November 1,  
12 2007, shall meet the requirements of Section .0900 of this Subchapter.

13 (2) 40 CFR 280.35(a)(1)(ii)(C) shall be rewritten as follows: (C) Requirements determined by the Division to be  
14 no less protective of human health and the environment than the requirements listed in Paragraphs  
15 (a)(1)(ii)(A) and (B) of this section.

16

17 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

18 *Eff. June 1, ~~2017-2017;~~*

19 *Amended Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0501 is proposed for readoption as follows:

2

3 **15A NCAC 02N .0501 GENERAL REQUIREMENTS FOR ALL UST SYSTEMS**

4 The regulations governing "General requirements for all UST systems" set forth in 40 CFR 280.40 (Subpart D) are  
5 hereby incorporated by ~~reference~~reference excluding any subsequent amendments and editions.

6

7 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

8 *Eff. January 1, 1991;*

9 *Amended Eff. June 1, ~~2017~~;2017;*

10 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0502 is proposed for readoption as follows:

2

3 **15A NCAC 02N .0502 REQUIREMENTS FOR PETROLEUM UST SYSTEMS**

4 The regulations governing "Requirements for petroleum UST systems" set forth in 40 CFR 280.41 (Subpart D) are  
5 hereby incorporated by ~~reference~~reference excluding any subsequent amendments and editions, except that UST  
6 systems located within areas described in Rule .0301(d) of this Subchapter shall meet the requirements for secondary  
7 containment described at 40 CFR 280.42(a) through (d) if the UST system installation or replacement was completed  
8 before November 1, 2007. UST system or UST system component installations or replacements completed on or after  
9 November 1, 2007, shall meet the secondary containment requirements of Section .0900 of this Subchapter.

10

11 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

12 *Eff. January 1, 1991;*

13 *Amended Eff. June 1, 2017; November 1, ~~2007~~2007;*

14 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0503 is proposed for readoption as follows:

2

3 **15A NCAC 02N .0503 REQUIREMENTS FOR HAZARDOUS SUBSTANCE UST SYSTEMS**

4 The regulations governing "Requirements for hazardous substance UST systems" set forth in 40 CFR 280.42 (Subpart  
5 D) are hereby incorporated by ~~reference,~~reference excluding any subsequent amendments and editions, except that  
6 hazardous substance UST systems or UST system components installed or replacements completed on or after  
7 November 1, 2007, shall meet the secondary containment requirements of Section .0900 of this Subchapter.

8

9 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

10 *Eff. January 1, 1991;*

11 *Amended Eff. June 1, 2017; November 1, ~~2007,~~2007;*

12 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0504 is proposed for readoption with substantive changes as follows:

2  
3 **15A NCAC 02N .0504 METHODS OF RELEASE DETECTION FOR TANKS**

4 (a) The regulations governing "Methods of release detection for tanks" set forth in 40 CFR 280.43 (Subpart D) are  
5 hereby incorporated by ~~reference,~~reference excluding any subsequent amendments and editions, except that 40 CFR  
6 280.43(f)(3), (f)(4), and (f)(5) shall not be adopted by reference.

7 (b) Wells used for monitoring or testing for free product in the groundwater shall be:

8 (1) ~~Located as follows:~~located

9 (A) ~~for new installations, within and at the end of the excavation having the lowest elevation~~  
10 ~~and along piping at intervals not exceeding 50 feet; or~~

11 (B) ~~for existing installations,~~ in the excavation zone or as near to it as technically feasible and  
12 installed in a borehole at least four inches larger than the diameter of the casing;

13 (2) ~~A~~a minimum of two inches in ~~diameter.~~diameter;

14 (3) ~~The number of wells installed shall be sufficient to detect releases from the UST system;~~installed  
15 such that a release from any portion of the UST will be detected;

16 (3)(4) ~~Equipped~~equipped with a screen that extends from two feet below land surface to a depth of 20 feet  
17 below land surface or two feet below the seasonal low water level, whichever is shallower. The  
18 screen shall be designed and installed to prevent the migration of natural soils or filter pack into the  
19 well while allowing the entry of regulated substances into the well under both high and low  
20 groundwater level conditions;

21 (4)(5) ~~Surrounded~~surrounded with clean sand or gravel to the top of the screen, plugged and grouted the  
22 remaining distance to finished grade with cement grout;

23 (5)(6) ~~Constructed~~constructed of a permanent casing and screen material that is inert to the stored  
24 substance and is corrosion resistant;

25 (6)(7) ~~Developed~~developed upon completion of installation until the water is clear and sediment free;

26 (7)(8) ~~Protected~~protected with a water-tight cover and lockable cap;

27 (8)(9) ~~Labeled~~labeled as a liquid monitor well; and

28 (9)(10) ~~Equipped~~equipped with a liquid leak detection device ~~continuously~~ operating on an uninterrupted  
29 basis; or

30 (A) For tanks storing petroleum products, tested at least once every 14 days with a device or  
31 hydrocarbon-sensitive paste capable of detecting the liquid stored; or

32 (B) For tanks storing hazardous substances, sampled and tested at least once every 14 days for  
33 the presence of the stored substance.

34 (c) Wells used for monitoring or testing for free product in the groundwater at new installations and constructed in  
35 accordance with Paragraph (b) of this Rule shall be deemed to be permitted in accordance with the requirements of  
36 15A NCAC 02C .0105.

1 (d) Any person completing or abandoning any well used for testing of vapors or monitoring for free product in the  
2 groundwater shall submit the ~~record-report~~ required by 15A NCAC 02C .0114(b).

3 (e) Wells used for monitoring for the presence of vapors in the soil gas of the excavation zone shall be equipped with  
4 a ~~continuously operating~~ vapor detection device operating on an uninterrupted basis or tested at least once every 14  
5 days for vapors of the substance stored.

6

7 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

8 *Eff. January 1, 1991;*

9 *Amended Eff. June 1, ~~2017~~; 2017;*

10 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0505 is proposed for readoption as follows:

2

3 **15A NCAC 02N .0505 METHODS OF RELEASE DETECTION FOR PIPING**

4 The regulations governing "Methods of release detection for piping" set forth in 40 CFR 280.44 (Subpart D) are hereby  
5 incorporated by ~~reference~~reference excluding any subsequent amendments and editions.

6

7 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

8 *Eff. January 1, 1991;*

9 *Amended Eff. June 1, ~~2017~~2017;*

10 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0506 is proposed for reoption as follows:

2

3 **15A NCAC 02N .0506 RELEASE DETECTION RECORDKEEPING**

4 The regulations governing "Release detection recordkeeping" set forth in 40 CFR 280.45 (Subpart D) are hereby  
5 incorporated by ~~reference~~reference excluding any subsequent amendments and editions.

6

7 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

8 *Eff. January 1, 1991;*

9 *Amended Eff. June 1, ~~2017~~, 2017;*

10 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0601 is proposed for readoption as follows:

2

3 **15A NCAC 02N .0601 REPORTING OF SUSPECTED RELEASES**

4 The regulations governing "Reporting of suspected releases" set forth in 40 CFR 280.50 (Subpart E) are hereby  
5 incorporated by ~~reference,~~reference excluding any subsequent amendments and editions, except that the words "or  
6 another reasonable period specified by the implementing agency," shall be deleted from the first sentence.

7

8 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

9 *Eff. January 1, 1991;*

10 *Amended Eff. June 1, ~~2017,~~2017;*

11 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0602 is proposed for reoption as follows:

2

3 **15A NCAC 02N .0602 INVESTIGATION DUE TO OFF-SITE IMPACTS**

4 The regulations governing "Investigation due to off-site impacts" set forth in 40 CFR 280.51 (Subpart E) are hereby  
5 incorporated by ~~reference~~reference excluding any subsequent amendments and editions.

6

7 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

8 *Eff. January 1, 1991;*

9 *Amended Eff. June 1, ~~2017~~, 2017;*

10 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0603 is proposed for re adoption as follows:

2

3 **15A NCAC 02N .0603 RELEASE INVESTIGATION AND CONFIRMATION STEPS**

4 The regulations governing "Release investigation and confirmation steps" set forth in 40 CFR 280.52 (Subpart E) are  
5 hereby incorporated by ~~reference,~~reference excluding any subsequent amendments and editions, except that in 40 CFR  
6 280.52 the words "or another reasonable time period specified by the implementing agency" shall not be adopted by  
7 reference. Upon written request, the Division may grant additional time to investigate and confirm suspected releases  
8 as specified in 40 CFR 280.53. The request shall be made to the Division prior to the expiration of the required time  
9 period. When considering such a request, the Division may consider factors as follows:

- 10 (1) the extent to which the request for additional time is due to factors outside of the control of the tank  
11 owner or operator;
- 12 (2) the previous history of the tank owner or operator submitting the report in complying with deadlines  
13 established under the Commission's rules;
- 14 (3) the technical complications associated with investigating and confirming suspected releases; and
- 15 (4) the necessity for action to eliminate an imminent threat to public health or the environment.

16

17 *History Note:* Authority *G.S. 143-215.3(a)(15); 143B-282(a)(2)(h);*~~150B-21.6;~~

18 *Eff. January 1, 1991;*

19 *Amended Eff. June 1, 2017, 2017;*

20 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0604 is proposed for readoption as follows:

2

3 **15A NCAC 02N .0604 REPORTING AND CLEANUP OF SPILLS AND OVERFILLS**

4 The regulations governing "Reporting and cleanup of spills and overfills" set forth in 40 CFR 280.53 (Subpart E) are  
5 hereby incorporated by ~~reference~~, reference excluding any subsequent amendments and editions, except that:

6 (1) ~~In~~ 40 CFR 280.53(a) the words "or another reasonable time period specified by the implementing  
7 agency" shall not be adopted by reference;

8 (2) ~~In~~ 40 CFR 280.53(b) the words "or another reasonable time period established by the  
9 implementing agency" shall not be adopted by reference;

10 (3) ~~In~~ 40 CFR 280.53(a)(1) and (b), the words, "or another reasonable amount specified by the  
11 implementing agency" shall not be adopted by reference; and

12 (4) ~~Upon~~ upon written request, the Division may grant additional time to submit the reports specified in  
13 40 CFR 280.53. The request shall be made to the Division prior to the expiration of the required  
14 time period. When considering such a request, the Division may consider factors as follows:

15 (a) the extent to which the request for additional time is due to factors outside of the control  
16 of the tank owner or operator;

17 (b) the previous history of the tank owner or operator submitting the report in complying with  
18 deadlines established under the Commission's rules;

19 (c) the technical complications associated with reporting and cleanup of spills and overfills;  
20 and

21 (d) the necessity for action to eliminate an imminent threat to public health or the environment.  
22

23 *History Note:* Authority *G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

24 *Eff. January 1, 1991;*

25 *Amended Eff. June 1, ~~2017~~; 2017;*

26 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0701 is proposed for readoption as follows:

2

3 **15A NCAC 02N .0701 GENERAL**

4 (a) The regulations governing "General" set forth in 40 CFR 280.60 (Subpart F) are hereby incorporated by reference.

5 (b) Any corrective action undertaken in accordance with this Section shall meet the requirements and standards  
6 specified in 15A NCAC 02L.

7

8 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

9 *Eff. January 1, 1991;*

10 *Amended Eff. September 1, 1992;*

11 *Temporary Amendment Eff. January 2, 1998;*

12 *Amended Eff. June 1, 2017; October 29, ~~1998-1998;~~*

13 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0702 is proposed for readoption as follows:

2

3 **15A NCAC 02N .0702 INITIAL RESPONSE**

4 The regulations governing "Initial response" set forth in 40 CFR 280.61 (Subpart F) are hereby incorporated by  
5 ~~reference,~~reference excluding any subsequent amendments and editions, except that the words "or within another  
6 reasonable period of time determined by the implementing agency" in the first sentence shall not be adopted by  
7 reference.

8

9 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

10 *Eff. January 1, 1991;*

11 *Amended Eff. June 1, ~~2017;~~2017;*

12 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0703 is proposed for re adoption as follows:

2

3 **15A NCAC 02N .0703 INITIAL ABATEMENT MEASURES AND SITE CHECK**

4 The regulations governing "Initial abatement measures and site check" set forth in 40 CFR 280.62 (Subpart F) are  
5 hereby incorporated by ~~reference~~, reference excluding any subsequent amendments and editions, except that:

6 (1) 40 CFR 280.62(a)(6) shall read, "Investigate to determine the possible presence of free product and  
7 begin free product removal within 14 days in accordance with 40 CFR 280.64." Upon written  
8 request, the Division may grant additional time to begin free product removal. The request shall be  
9 made to the Division prior to the expiration of the required time period. When considering such a  
10 request, the Division may consider factors as follows:

11 (a) the extent to which the request for additional time is due to factors outside of the control  
12 of the tank owner or operator;

13 (b) the previous history of the tank owner or operator submitting the report in complying with  
14 deadlines established under the Commission's rules;

15 (c) the technical complications associated with free product removal; and

16 (d) the necessity for action to eliminate an imminent threat to public health or the environment;  
17 and

18 (2) In 40 CFR 280.62(b) the words, "or within another reasonable period of time determined by the  
19 implementing agency," shall not be adopted by reference.

20

21 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

22 *Eff. January 1, 1991;*

23 *Amended Eff. June 1, ~~2017~~, 2017;*

24 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0704 is proposed for readoption as follows:

2

3 **15A NCAC 02N .0704 INITIAL SITE CHARACTERIZATION**

4 The regulations governing "Initial site characterization" set forth in 40 CFR 280.63 (Subpart F) are hereby  
5 incorporated by ~~reference,~~reference excluding any subsequent amendments and editions, except that in 40 CFR  
6 280.63(b) the words "or another reasonable period of time determined by the implementing agency" shall not be  
7 adopted by reference. Upon written request, the Division may grant additional time to submit the information collected  
8 in compliance with 40 CFR 280.63(a). The request shall be made to the Division prior to the expiration of the required  
9 time period. When considering such a request, the Division may consider factors as follows:

- 10 (1) the extent to which the request for additional time is due to factors outside of the control of the tank  
11 owner or operator;
- 12 (2) the previous history of the tank owner or operator submitting the report in complying with deadlines  
13 established under the Commission's rules;
- 14 (3) the technical complications associated with an initial site characterization; and
- 15 (4) the necessity for action to eliminate an imminent threat to public health or the environment.

16

17 *History Note:* Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~

18 Eff. January 1, 1991;

19 Amended Eff. June 1, ~~2017;~~2017;

20 Readopted Eff. XXXX 1, 2021.

1 15A NCAC 02N .0705 is proposed for readoption as follows:

2

3 **15A NCAC 02N .0705 FREE PRODUCT REMOVAL**

4 The regulations governing "Free product removal" set forth in 40 CFR 280.64 (Subpart F) are hereby incorporated by  
5 ~~reference-~~reference excluding any subsequent amendments and editions.

6

7 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

8 *Eff. January 1, 1991;*

9 *Amended Eff. June 1, ~~2017;~~2017;*

10 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0706 is proposed for readoption as follows:

2

3 **15A NCAC 02N .0706 INVESTIGATIONS FOR SOIL AND GROUNDWATER CLEANUP**

4 The regulations governing "Investigations for soil and groundwater cleanup" set forth in 40 CFR 280.65 (Subpart F)  
5 are hereby incorporated by ~~reference.~~reference excluding any subsequent amendments and editions.

6

7 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

8 *Eff. January 1, 1991;*

9 *Amended Eff. June 1, ~~2017;~~2017;*

10 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0707 is proposed for readoption as follows:

2

3 **15A NCAC 02N .0707 CORRECTIVE ACTION PLAN**

4 The regulations governing "Corrective action plan" set forth in 40 CFR 280.66 (Subpart F) are hereby incorporated  
5 by ~~reference,~~reference excluding any subsequent amendments and editions, except that 40 CFR 280.66(a) shall read:  
6 "After reviewing the information submitted in compliance with 40 CFR 280.61 through 40 CFR 280.63, the Division  
7 may require owners and operators to submit additional information or to develop and submit a corrective action plan  
8 for responding to contaminated soils and groundwater. If a plan is required, owners and operators ~~must~~shall prepare a  
9 plan in accordance with the requirements specified in 15A NCAC 02L."

10

11 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h);*  
12 *Eff. January 1, 1991;*  
13 *Amended Eff. September 1, 1992;*  
14 *Temporary Amendment Eff. January 2, 1998;*  
15 *Amended Eff. June 1, 2017; October 29, ~~1998-1998;~~*  
16 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0708 is proposed for reoption as follows:

2

3 **15A NCAC 02N .0708 PUBLIC PARTICIPATION**

4 The regulations governing "Public participation" set forth in 40 CFR 280.67 (Subpart F) are hereby incorporated by  
5 ~~reference.~~reference excluding any subsequent amendments and editions.

6

7 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

8 *Eff. January 1, 1991;*

9 *Amended Eff. June 1, ~~2017;~~2017;*

10 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0801 is proposed for readoption as follows:

2

3 **15A NCAC 02N .0801 TEMPORARY CLOSURE**

4 The regulations governing "Temporary closure" set forth in 40 CFR 280.70 (Subpart G) are hereby incorporated by  
5 ~~reference.~~reference excluding any subsequent amendments and editions.

6

7 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

8 *Eff. January 1, 1991;*

9 *Amended Eff. June 1, ~~2017;~~2017;*

10 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0802 is proposed for reoption as follows:

2

3 **15A NCAC 02N .0802 PERMANENT CLOSURE AND CHANGES-IN-SERVICE**

4 The regulations governing "Permanent closure and changes-in-service" set forth in 40 CFR 280.71 (Subpart G) are  
5 hereby incorporated by ~~reference,~~reference excluding any subsequent amendments and editions, except that an UST  
6 system containing de minimis concentrations of a regulated substance shall meet the closure requirements of this Rule  
7 within 12 months of ~~the effective date of this Subchapter,~~January 1, 1991.

8

9 *History Note:* Authority *G.S. 143-215.3(a)(15); 143B-282(a)(2)(h);*~~*150B-21.6;*~~

10 *Eff. January 1, 1991;*

11 *Amended Eff. June 1, 2017, 2017;*

12 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0803 is proposed for readoption as follows:

2

3 **15A NCAC 02N .0803 ASSESSING THE SITE AT CLOSURE OR CHANGE-IN-SERVICE**

4 The regulations governing "Assessing the site at closure or change-in-service" set forth in 40 CFR 280.72 (Subpart G)  
5 are hereby incorporated by ~~reference~~, reference excluding any subsequent amendments and editions, except that:

6 (1) references to methods and requirements shall include all applicable references and methods listed  
7 in 15A NCAC 02N .0504; and

8 (2) the number and location of samples and method of their collection shall be determined in accordance  
9 with procedures established by the Division. In establishing procedures, the Division may consider  
10 factors such as:

11 (a) dimensions of the USTs;

12 (b) type of products stored in the USTs;

13 (c) method of closure;

14 (d) type of and length of associated product lines;

15 (e) number of associated dispensers;

16 (f) number of associated containment sumps;

17 (g) methods of field sample analysis and laboratory sample analysis;

18 (h) potential for vapor intrusion;

19 (i) proximity to surface waters; and

20 (j) site conditions such as site geology and hydrology.

21

22 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

23 *Eff. January 1, 1991;*

24 *Amended Eff. June 1, ~~2017~~, 2017;*

25 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0804 is proposed for readoption as follows:

2

3 **15A NCAC 02N .0804 APPLICABILITY TO PREVIOUSLY CLOSED UST SYSTEMS**

4 The regulations governing "Applicability to previously closed UST systems" set forth in 40 CFR 280.73 (Subpart G)  
5 are hereby incorporated by ~~reference.~~reference excluding any subsequent amendments and editions.

6

7 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

8 *Eff. January 1, 1991;*

9 *Amended Eff. June 1, ~~2017;~~2017;*

10 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0805 is proposed for readoption as follows:

2

3 **15A NCAC 02N .0805 CLOSURE RECORDS**

4 The regulations governing "Closure records" set forth in 40 CFR 280.74 (Subpart G) are hereby incorporated by  
5 ~~reference.~~reference excluding any subsequent amendments and editions.

6

7 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h); ~~150B-21.6;~~*

8 *Eff. January 1, 1991;*

9 *Amended Eff. June 1, ~~2017;~~2017;*

10 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0901 is proposed for reoption with substantive changes as follows:

2

3 **15A NCAC 02N .0901 GENERAL REQUIREMENTS**

4 (a) This Section applies to a UST system or UST system component installation or replacement completed on or after  
5 November 1, 2007.

6 (b) A UST system or UST system component shall not be installed or replaced within an area defined ~~at 15A NCAC~~  
7 ~~02N .0301(b)~~ in Rule .0301(b) of this Subchapter.

8 (c) A tank shall meet the requirements for secondary containment including interstitial release detection monitoring  
9 in accordance with this Rule.

10 (d) All UST system components other than tanks including connected piping, underground ancillary equipment,  
11 dispensers, line leak detectors, submersible pumps, spill buckets, siphon bars, and remote fill pipes shall meet the  
12 requirements for secondary containment including interstitial release detection monitoring in accordance with this  
13 Rule. Gravity-fed vertical fill pipes, vapor recovery, vent lines, and containment sumps are excluded from the  
14 secondary containment requirements in this Rule.

15 (e) A UST system design is required for installation or replacement of a UST system, UST, or connected piping. If  
16 required by G.S. 89C, UST system designs must be prepared by a Professional Engineer licensed by the North Carolina  
17 Board of Examiners for Engineers and Surveyors.

18 [Note: The North Carolina Board of Examiners for Engineers and Surveyors has determined via letter dated December  
19 20, 1993, that preparation of a UST system design constitutes practicing engineering under G.S. 89C.]

20 (f) If required by the equipment manufacturer, persons installing, replacing or repairing UST systems or UST system  
21 components must be trained and certified by the equipment manufacturer or the equipment manufacturer's authorized  
22 representative to install, replace or repair such equipment.

23 (g) UST systems or UST system components shall be installed, tested, operated, and maintained in accordance with  
24 the manufacturer's specifications and the codes of practice, and industry standards described ~~at 15A NCAC 02N~~  
25 ~~.0907~~ in Rule .0907 of this Section.

26 (h) UST systems or UST system components shall not be installed or replaced in areas where they will be in contact  
27 with contaminated soil or free product.

28 (i) Secondary containment systems shall be designed, constructed, installed and maintained to:

29 (1) ~~Detect~~ detect the failure of the inner wall and outer wall for UST system components with double  
30 wall construction;

31 (2) ~~Contain~~ contain regulated substances released from a UST system until they are detected and  
32 removed;

33 (3) ~~Prevent~~ prevent a release of regulated substances to the environment outside of the containment  
34 system;

35 (4) ~~Direct~~ direct releases to a monitoring point or points;

36 (5) ~~Provide~~ provide a release detection monitoring device or monitoring method for the interstitial space;

- 1 (6) ~~Continuously on an uninterrupted basis,~~ monitor the inner and outer walls of double-walled tanks  
2 for breaches of integrity using pressure, vacuum or hydrostatic monitoring methods or monitor the  
3 interstitial space of double-walled tanks for releases using an electronic liquid detecting sensor  
4 method along with periodic testing as specified in Rule ~~.0903(f);~~.0903(f) of this Section;
- 5 (7) ~~Continuously on an uninterrupted basis,~~ monitor the inner and outer walls of double-walled non-tank  
6 components for breaches of integrity using pressure, vacuum, or hydrostatic methods, or monitor a  
7 non-tank component for releases by using an electronic liquid detecting sensor placed in a  
8 containment sump and in the interstitial space of a double-walled spill bucket along with periodic  
9 integrity testing as specified in Rules ~~.0904(h), .0905(f),~~.0904(f), .0905(g) and ~~.0906(e);~~.0906(e) of  
10 this Section; and
- 11 (8) ~~Provide~~provide a printed record of release detection monitoring results and an alarm history for each  
12 month.
- 13 (j) Electronic liquid detecting sensors used to monitor the interstitial space of double-walled tanks and non-tank  
14 components shall meet the following requirements:
- 15 (1) Electronic liquid detecting sensors used for tanks and spill buckets ~~must~~shall be located at the lowest  
16 point in the interstitial space. Electronic liquid detecting sensors used for containment sumps  
17 ~~must~~shall be located as specified in Rule ~~.0905(d);~~.0905(d) of this Section.
- 18 (2) A tank ~~must~~shall have a method to verify that an electronic liquid detecting sensor is located at the  
19 lowest point of the interstitial space. Verification of the sensor location ~~must~~shall be available for  
20 inspection.
- 21 (3) Electronic liquid detecting sensors ~~must~~shall detect the presence of any liquid in the interstitial space  
22 and ~~must~~shall activate an alarm when any type of liquid is detected.
- 23 (4) Any liquid detected in the interstitial space must be removed within 48 hours of discovery.
- 24 (k) New or replacement dispensers shall be provided with under dispenser containment sumps and shall meet the  
25 secondary containment requirements and performance standards of this Rule.
- 26 (l) All release detection monitoring equipment shall be installed, calibrated, operated and maintained in accordance  
27 with manufacturer's instructions. All release detection monitoring equipment shall be checked annually for  
28 operability, proper operating condition and proper calibration in accordance with the ~~manufacturers~~manufacturer's  
29 written guidelines. The results of the last annual check must be recorded, maintained at the UST site or the tank owner  
30 or operator's place of business, and made available for inspection.
- 31 (m) Releases detected in an interstitial space shall be reported in accordance with Rule .0601 of this Subchapter and  
32 investigated in accordance with the ~~manufacturers~~manufacturer's written guidelines. Any changes in the original  
33 physical characteristics or integrity of a piping system or a containment sump ~~must~~shall also be reported in accordance  
34 with Rule .0601 of this Subchapter and investigated in accordance with the manufacturer's written guidelines.
- 35 (n) UST systems and UST system components shall also meet all of the ~~installation~~ requirements specified in 40 CFR  
36 280.20(c), (d) and (e). In addition, overfill prevention equipment shall be checked annually for operability, proper  
37 operating condition and proper calibration in accordance ~~with the manufacturer's written guidelines.~~with:

- 1           (1) written requirements developed by the manufacturer;  
2           (2) a code of practice developed by a nationally recognized association or independent testing  
3                 laboratory; or  
4           (3) requirements determined by the Division to be no less protective of human health and the  
5                 environment than the requirements listed in Subparagraph (1) or (2) of this Paragraph. At a  
6                 minimum, the inspection must ensure that overfill prevention equipment is set to activate at the  
7                 correct level specified in 40 CFR 280.20(c)(1)(ii) and will activate when regulated substance reaches  
8                 that level.

9     The results of the last annual check ~~must~~shall be recorded, maintained at the UST site or the tank owner or operator's  
10  place of business, and made available for inspection.

11  
12  *History Note:     Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h);*  
13                     *Eff. November 1, 2007;*  
14                     *Amended Eff. February 1, ~~2010~~2010;*  
15                     *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0902 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 02N .0902 NOTIFICATION**

4 (a) Owners and operators ~~must~~shall provide notification of installation or replacement of an UST system, UST, or  
5 connected piping to the Division in accordance with ~~15A NCAC 02N .0303~~Rule .0303 of this Subchapter. The notice  
6 shall also include:

- 7 (1) An UST system design.
- 8 (2) Equipment to be installed including model and manufacturer and the materials of construction.
- 9 (3) Device or method to be used to allow piping to be located after it is buried underground.
- 10 (4) A site plan drawn to scale showing the proposed location of UST systems relative to buildings and  
11 other permanent structures, roadways, utilities, other UST systems, monitoring wells, and water  
12 supply wells within 500 feet used for human consumption within 500 feet consumption.
- 13 (5) A schedule for UST system installation or replacement.

14 (b) Owners and operators ~~must~~shall notify the Division at least 48 hours prior to the following stages of construction  
15 so that the Division may perform an inspection of the installation:

- 16 (1) ~~Pre installation~~pre-installation tightness testing of tanks; and
- 17 (2) ~~Final~~final tightness testing of piping before it is backfilled.

18 (c) Documents showing the following information shall be submitted to the Division within 30 days after UST system,  
19 UST, or connected piping installation or replacement is completed and shall be maintained at the UST system site or  
20 the owner's or operator's place of business for the life of the UST system. These records shall be transferred to a new  
21 tank owner at the time of a transfer of tank ownership:

- 22 (1) Certification from the UST system installer containing:
  - 23 (A) ~~The~~the UST system installer's name, address and telephone number; training and any  
24 certification received from the manufacturer of the equipment that was installed or replaced  
25 or the equipment manufacturer's authorized representative including any certification  
26 number;
  - 27 (B) ~~An~~an as-built diagram drawn to scale showing: the name and address of the UST system  
28 site; the date of UST system, UST, or connected piping installation or replacement; the  
29 equipment that was installed including model and manufacturer; the information described  
30 ~~at 15A NCAC 02N .0903(b); in Rule .0903(c) of this Section~~; the method used to anchor a  
31 tank in the ground; if the equipment has single-walled or double-walled construction; the  
32 year the piping was manufactured and any production code; and the device or method used  
33 to allow piping to be located after it is buried underground. The as-built diagram shall also  
34 show the location of the installed or replaced UST systems relative to: buildings and other  
35 permanent structures, utilities, monitoring wells and other UST systems located at the site;  
36 adjacent roadways; and water supply wells used for human consumption within 500 feet;

1 (C) ~~Aa~~ listing of the manufacturer's written guidelines, codes of practice, and industry  
2 standards used for installation; and

3 (D) ~~Aa~~ statement that the UST system was installed in accordance with the design and the  
4 manufacturer's specifications.

5 (2) ~~Manufacturer~~manufacturer warranties;

6 (3) ~~Any~~any equipment performance claims; and

7 (4) ~~Records~~records of all tightness testing performed.

8

9 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h);*

10 *Eff. November 1, ~~2007~~, 2007;*

11 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0903 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 02N .0903 TANKS**

4 (a) Tanks ~~must~~shall be protected from external corrosion in accordance with 40 CFR 280.20(a)(1), (2), (3), or (5).

5 (b) Owners and operators of tanks installed in accordance with 40 CFR 280.20(a)(2) shall comply with all applicable  
6 requirements for corrosion protection systems contained in this Subchapter.

7 (c) The exterior surface of a tank shall bear a permanent marking, code stamp, or label showing the following  
8 information:

9 (1) ~~The~~the engineering standard used;

10 (2) ~~The~~the diameter in feet;

11 (3) ~~The~~the capacity in gallons;

12 (4) ~~The~~the materials of construction of the inner and outer walls of the tank, including any external or  
13 internal coatings;

14 (5) ~~Serial~~serial number or other unique identification number designated by the tank manufacturer;

15 (6) ~~Date~~date manufactured; and

16 (7) ~~Identify~~identify of manufacturer.

17 (d) Tanks that will be reused shall be certified by the tank manufacturer prior to re-installation and meet all of the  
18 requirements of this Section. Tank owners and operators shall submit proof of certification to the Division along with  
19 a notice of intent (~~Rule .0902~~);in accordance with Rule .0902 of this Section.

20 (e) Tanks shall be tested before and after installation in accordance with the following requirements:

21 (1) Pre- Installation Test - Before installation, the primary containment and the interstitial space shall  
22 be tested in accordance with the manufacturers written guidelines and PEI/RP100, "Recommended  
23 Practice for Installation of Underground Liquid Storage Systems." PEI/RP100, "Recommended  
24 Practice for Installation of Underground Liquid Storage Systems" is hereby incorporated by  
25 reference including subsequent amendments and editions. A copy may be obtained from Petroleum  
26 Equipment ~~Institute, P.O. Box 2380, Tulsa, Oklahoma 74101 2380~~Institute at  
27 <https://my.pei.org/productdetails?id=a1Bf400001yPEBEA2> at a cost of one hundred and ninety-  
28 five dollars (\$95.00),(\$195.00). The presence of soap bubbles or water droplets during a pressure  
29 test, any change in vacuum beyond the limits specified by the tank manufacturer during a vacuum  
30 test, or any change in liquid level in an interstitial space liquid reservoir beyond the limits specified  
31 by the tank manufacturer, shall be considered a failure of the integrity of the tank.

32 (2) Post-installation Test – The interstitial space shall be checked for a loss of pressure or vacuum, or a  
33 change in liquid level in an interstitial space liquid reservoir. Any loss of pressure or vacuum beyond  
34 the limits specified by the tank manufacturer, or a change in liquid level beyond the limits specified  
35 by the tank manufacturer, shall be considered a failure of the integrity of the tank.

36 (3) If a tank fails a pre-installation or post-installation test, tank installation shall be suspended until the  
37 tank is replaced or repaired in accordance with the manufacturer's specifications. Following any

1 repair, the tank shall be re-tested in accordance with Subparagraph ~~(e)(1)(1)~~ of this ~~Rule~~Paragraph  
2 if it failed the pre-installation test and in accordance with Subparagraph ~~(e)(2)(2)~~ of this  
3 ~~Rule~~Paragraph if it failed the post-installation test.

4 (f) The interstitial spaces of tanks that are not monitored using vacuum, pressure, or hydrostatic methods shall be  
5 tested for tightness before UST system start-up, between six months and the first anniversary of start-up, and every  
6 three years thereafter. The interstitial space shall be tested using an interstitial tank tightness test method that is  
7 capable of detecting a 0.10 gallon per hour leak rate with a probability of detection (Pd) of at least 95 percent and a  
8 probability of false alarm (Pfa) of no more than ~~5~~five percent. The test method shall be evaluated by an independent  
9 testing laboratory, consulting firm, not-for-profit research organization, or educational institution using the most recent  
10 version of the United States Environmental Protection Agency's (EPA's) "Standard Test Procedures for Evaluating  
11 ~~LeakRelease~~ Detection Methods."Methods: Volumetric and Non-volumetric Tank Tightness Testing (EPA 510-B-19-  
12 003)." EPA's "Standard Test Procedures for Evaluating ~~LeakRelease~~ Detection Methods."Methods: Volumetric and  
13 Non-volumetric Tank Tightness Testing (EPA 510-B-19-003)" is hereby incorporated by reference including  
14 subsequent amendments and additions. A copy may be obtained by visiting EPA's Office of Underground Storage  
15 Tank website: ~~http://www.epa.gov/OUST/pubs/protocol.htm~~ [https://www.epa.gov/ust/standard-test-procedures-  
16 evaluating-various-leak-detection-methods](https://www.epa.gov/ust/standard-test-procedures-evaluating-various-leak-detection-methods) and may be accessed free of charge. The independent testing laboratory,  
17 consulting firm, not-for-profit research organization, or educational institution shall certify that the test method can  
18 detect a 0.10 gallon per hour leak rate with a Pd of at least 95 percent and a Pfa of no more than ~~5~~five percent for the  
19 specific tank model being tested. If a tank fails an interstitial tank tightness test, it shall be replaced by the owner or  
20 operator or repaired by the manufacturer or the manufacturer's authorized representative in accordance with  
21 manufacturer's specifications. Tank owners and operators shall report all failed interstitial tank tightness tests to the  
22 Division within 24 hours. Failed interstitial tank tightness tests shall be reported by fax to the Division of Waste  
23 Management, Underground Storage Tank Section, at (919) 715-1117. Following any repair, the tank interstitial space  
24 shall be re-tested for tightness. The most recent interstitial tightness test record shall be maintained at the UST site or  
25 the tank owner's or operator's place of business and shall be available for inspection.

26  
27 *History Note:* Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h);  
28 Eff. November 1, 2007;  
29 Amended Eff. June 1, 2015; February 1, ~~2010~~2010;  
30 Readopted Eff. XXXX 1, 2021.

1 15A NCAC 02N .0904 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 02N .0904 PIPING**

4 (a) Piping, with the exception of flexible connectors and piping connections, shall be pre-fabricated with double-  
5 walled construction. Any flexible connectors or piping connections that do not have double-walled construction shall  
6 be installed in containment sumps that meet the requirements of ~~15A NCAC 02N .0905~~ Rule .0905 of this Section.

7 (b) ~~Piping~~ Piping, with the exception of metal flex connectors and piping connections, shall be constructed of non-  
8 ~~corroding materials.~~ meet the requirements of Subparagraph (1) or (2) of this Paragraph. Metal flexible connectors  
9 and piping connections shall be installed in containment sumps that meet the requirements of ~~15A NCAC 02N~~  
10 ~~.0905~~ Rule .0905 of this Section.

11 ~~(c)(1)~~ (1) Piping shall ~~Primary and secondary piping are constructed of non-corroding materials and comply~~  
12 ~~with the UL~~ Underwriters Laboratories Standard (UL) 971 standard "Nonmetallic Underground  
13 Piping for Flammable Liquids;" "Liquids" that is in effect at the time the piping is installed. UL 971  
14 ~~standard "Nonmetallic~~ "Standard for Nonmetallic Underground Piping for Flammable Liquids" is  
15 hereby incorporated by reference including subsequent amendments and editions. A copy may be  
16 obtained from ~~Underwriters Laboratories, 333 Pfingsten Road, Northbrook, Illinois 60062-~~  
17 ~~2096~~ Laboratories at <https://www.shopulstandards.com/PurchaseProduct.aspx?UniqueKey=7936> at  
18 a cost of four hundred and two dollars (\$402.00).

19 ~~(2)~~ (2) Primary piping is constructed of stainless steel and secondary piping is constructed of non-corroding  
20 materials and complies with UL 971A "Outline of Investigation for Metallic Underground Fuel  
21 Pipe." UL 971A "Outline of Investigation for Metallic Underground Fuel Pipe" is hereby  
22 incorporated by reference including subsequent amendments and editions. A copy may be obtained  
23 from \_\_\_\_\_ Underwriters \_\_\_\_\_ Laboratories \_\_\_\_\_ at  
24 <https://www.shopulstandards.com/PurchaseProduct.aspx?UniqueKey=15373> at a cost of two  
25 hundred and twenty-five dollars (\$225.00).

26 ~~(c)~~ (c) Piping that is buried underground shall be constructed with a device or method that allows it to be located once  
27 it is installed.

28 ~~(d)~~ (d) Piping that conveys regulated substances under pressure shall also be equipped with an automatic line leak  
29 detector that meets the requirements of 40 CFR 280.44(a).

30 ~~(e)~~ (e) At the time of installation, the primary containment and interstitial space of the piping shall be initially tested,  
31 monitored during construction, and finally tested in accordance with the manufacturers written guidelines and  
32 PEI/RP100, "Recommended Practice for Installation of Underground Liquid Storage Systems." The presence of soap  
33 bubbles or water droplets or any loss of pressure beyond the limits specified by the piping manufacturer during testing  
34 shall be considered a failure of the integrity of the piping. If the piping fails a tightness test, it shall be replaced by the  
35 owner or operator or repaired by the manufacturer or the manufacturer's authorized representative in accordance with  
36 the manufacturer's written specifications. Following any repair, the piping shall be re-tested for tightness in accordance

1 with the manufacturers written guidelines and PEI/RP100, "Recommended Practice for Installation of Underground  
2 Liquid Storage Systems."  
3 ~~(g)~~(f) Piping that is not monitored continuously for releases using vacuum, pressure, or hydrostatic methods, shall be  
4 tested for tightness every three years following installation. The primary containment ~~and~~shall be tested using a piping  
5 tightness test method that is capable of detecting a 0.10 gallon per hour leak rate with a probability of detection (Pd)  
6 of at least 95 percent and a probability of false alarm (Pfa) of no more than five percent. The test method shall be  
7 evaluated by an independent testing laboratory, consulting firm, not-for-profit research organization, or educational  
8 institution using the most recent version of the United States Environmental Protection Agency's (EPA's) "Standard  
9 Test Procedures for Evaluating Release Detection Methods: Pipeline Release Detection (EPA 510-B-19-005)." EPA's  
10 "Standard Test Procedures for Evaluating Release Detection Methods: Pipeline Release Detection (EPA 510-B-19-  
11 005)" is hereby incorporated by reference including subsequent amendments and additions. The independent testing  
12 laboratory, consulting firm, not-for-profit research organization, or educational institution shall certify that the test  
13 method can detect a 0.10 gallon per hour leak rate with a Pd of at least 95 percent and a Pfa of no more than five  
14 percent. The interstitial space of the piping shall be tested in accordance with the ~~manufacturers~~manufacturer's written  
15 guidelines and PEI/RP100 "Recommended Practice for Installation of Underground Liquid Storage Systems." or a  
16 code of practice developed by a nationally recognized association or independent testing laboratory. If the piping fails  
17 a tightness test, it shall be replaced or repaired by the manufacturer or the manufacturer's authorized representative in  
18 accordance with the manufacturer's specifications. Following any repair, the piping shall be re-tested for  
19 ~~tightness.~~tightness in accordance with Paragraph (f) of this Rule. The most recent periodic tightness test record shall  
20 be maintained at the UST site or the tank owner or operator's place of business and shall be available for inspection.

21  
22 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h);*  
23 *Eff. November 1, 2007;*  
24 *Amended Eff. June 1, ~~2015~~2015;*  
25 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0905 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 02N .0905 CONTAINMENT SUMPS**

4 (a) Containment sumps ~~must~~shall be constructed of non-corroding materials.

5 (b) Containment sumps ~~must~~shall be designed and manufactured expressly for the purpose of containing and detecting  
6 a release.

7 (c) Containment sumps ~~must~~shall be designed, constructed, installed and maintained to prevent water infiltration.

8 (d) Electronic sensor probes used for release detection monitoring ~~must~~shall be located no more than two inches  
9 above the lowest point of the containment sump.

10 (e) At installation, containment sumps shall be tested for tightness after construction, but before backfilling. Tightness  
11 testing shall be conducted in accordance with the ~~manufacturers~~manufacturer's written guidelines and PEI/RP100,  
12 "Recommended Practice for Installation of Underground Liquid Storage Systems." ~~Any change in water level shall~~  
13 ~~be considered a failure of the integrity of the sump.~~ Other tightness test methods may be used if they are approved by  
14 the Division. In approving a containment sump tightness testing method the Division shall consider the following  
15 factors:

16 (1) ~~The~~the inner surface of the sump is tested to at least ~~six~~four inches above the highest joint or  
17 penetration fitting, whichever is higher; and

18 (2) ~~The~~the method is capable of detecting a fracture, perforation or gap in the sump within the specified  
19 test period.

20 (f) If a containment sump fails an installation tightness test, the sump ~~must~~shall be replaced or repaired by the  
21 manufacturer or the manufacturer's authorized representative in accordance with the manufacturer's specifications.  
22 Following replacement or repair, the containment sump ~~must~~shall be re-tested for tightness in accordance with  
23 Paragraph (e) of this Rule.

24 (g) Containment sumps that are not monitored continuously on an uninterrupted basis for releases using vacuum,  
25 pressure or hydrostatic interstitial monitoring methods shall be tested for tightness every three years following  
26 installation in accordance with the manufacturer's written guidelines and PEI/RP100, "Recommended Practice for  
27 Installation of Underground Liquid Storage Systems."with:

28 (1) written requirements developed by the manufacturer;

29 (2) a code of practice developed by a nationally recognized association or independent testing  
30 laboratory; or

31 (3) requirements determined by the Division to be no less protective of human health and the  
32 environment than the requirements listed in Subparagraph (1) and (2) of this Paragraph.

33 If a containment sump fails a periodic tightness test, the sump ~~must~~shall be replaced in accordance with Paragraphs  
34 (a), (b) and (c) of this Rule or repaired by the manufacturer or the manufacturer's authorized representative in  
35 accordance with the manufacturer's ~~specifications~~specifications or a code of practice developed by a nationally  
36 recognized association or independent testing laboratory. Following replacement or repair, the containment sump  
37 ~~must~~shall be re-tested for tightness in accordance with Paragraph (e) of this Rule. The last periodic tightness test

1 record ~~must~~shall be maintained at the UST site or the tank owner or operator's place of business and ~~must~~shall be  
2 ~~readily~~ available for inspection.

3 ~~(g)~~(h) All containment sumps shall be visually inspected at least annually ~~for the presence of water or regulated~~  
4 ~~substance in accordance with Rule .0407 of this Subchapter.~~ Any water or regulated substance ~~must~~present in a sump  
5 at the time of inspection shall be removed from the sump within 48 hours of discovery. The visual inspection results  
6 ~~must~~shall be documented and ~~must~~shall be maintained for at least one year at the UST site or the tank owner's or  
7 operator's place of business and ~~must~~shall be ~~readily~~ available for inspection.

8

9 *History Note: Authority G.S. 143-215.3(a)(15); 143B-282(2)(h);*

10 *Eff. November 1, ~~2007~~, 2007;*

11 *Readopted Eff. XXXX 1, 2021.*

1 15A NCAC 02N .0906 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 02N .0906 SPILL BUCKETS**

4 (a) Spill buckets shall be pre-fabricated with double-walled construction.

5 (b) Spill buckets ~~must~~shall be protected from corrosion by being constructed of non-corroding materials.

6 (c) Spill buckets ~~must~~shall be designed, constructed, ~~installed~~installed, and maintained to prevent water infiltration.

7 (d) After installation but before backfilling, the primary containment and interstitial space of the spill bucket shall be  
8 tested in accordance with the ~~manufacturers~~manufacturer's written guidelines ~~and PEI/RP100, "Recommended~~  
9 ~~Practice for Installation of Underground Liquid Storage Systems."~~or a code of practice developed by a nationally  
10 ~~recognized association or independent testing laboratory.~~ Any change in vacuum during a vacuum test or any change  
11 in liquid level in an interstitial space liquid reservoir beyond the limits specified by the equipment manufacturer shall  
12 be considered a failure of the integrity of the spill bucket. If the spill bucket fails a tightness test, it ~~must~~shall be  
13 replaced or repaired by the manufacturer or the manufacturer's authorized representative in accordance with the  
14 manufacturer's specifications. Following any repair, the spill bucket ~~must~~shall be re-tested for tightness in accordance  
15 with the manufacturers' written guidelines ~~and PEI/RP100, "Recommended Practice for Installation of Underground~~  
16 ~~Liquid Storage Systems."~~or a code of practice developed by a nationally recognized association or independent testing  
17 ~~laboratory.~~

18 (e) Spill buckets that are not monitored ~~continuously~~on an uninterrupted basis for releases using vacuum, pressure or  
19 hydrostatic methods, ~~must~~shall be tested for tightness ~~at installation and~~ every three years following installation. The  
20 primary containment and interstitial space of the spill bucket shall be tested in accordance ~~with the manufacturers'~~  
21 ~~written guidelines and PEI/RP100 "Recommended Practice for Installation of Underground Liquid Storage~~  
22 ~~Systems."~~with:

23 (1) written requirements developed by the manufacturer;

24 (2) a code of practice developed by a nationally recognized association or independent testing  
25 laboratory; or

26 (3) requirements determined by the Division to be no less protective of human health and the  
27 environment than the requirements listed in Subparagraph (1) and (2) of this Paragraph.

28 If the spill bucket fails a tightness test, it ~~must~~shall be replaced ~~and tested in accordance with Paragraphs (a) through~~  
29 ~~(d) of this Rule~~ or repaired by the manufacturer or the manufacturer's authorized representative in accordance with the  
30 manufacturer's specifications. Following any repair, the spill bucket ~~must~~shall be re-tested for ~~tightness~~tightness in  
31 ~~accordance with the manufacturers' written guidelines or a code of practice developed by a nationally recognized~~  
32 ~~association or independent testing laboratory.~~ The last periodic tightness test record ~~must~~shall be maintained at the  
33 UST site or the tank owner or operator's place of business and ~~must~~shall be ~~readily~~available for inspection.

34

35 *History Note:* Authority G.S. 143-215.3(a)(15); 143B-282(2)(h);

36 Eff. November 1, 2007-2007;

37 Readopted Eff. XXXX 1, 2021.

1 15A NCAC 02N .0907 is proposed for readoption with substantive changes as follows:

2  
3 **15A NCAC 02N .0907 NATIONAL CODES OF PRACTICE AND INDUSTRY STANDARDS**

4 In order to comply with this Section, owners and operators must comply with ~~either of the~~ following standards:

5 (1) The most recent versions of the following national codes of practice and industry standards  
6 applicable at the time of UST system installation or replacement shall be ~~used to comply with this~~  
7 ~~Section-used.~~

8 (a) American Concrete Institute (ACI) International ~~224R-89,224R-01~~, "Control of Cracking  
9 in Concrete Structures." ACI International ~~224R-89,224R-01~~, "Control of Cracking in  
10 Concrete Structures" is hereby incorporated by reference including subsequent  
11 amendments and editions. A copy may be obtained from ACI International, P.O. Box  
12 9094, Farmington Hills, Michigan 48333 9094 International at  
13 <https://www.concrete.org/store/productdetail.aspx?ItemID=22401&Format=DOWNLOA>  
14 [D&Language=English&Units=US\\_AND\\_METRIC](https://www.concrete.org/store/productdetail.aspx?ItemID=22401&Format=DOWNLOA) at a cost of ~~sixty seven~~sixty seven  
15 ~~seventy-four~~seventy-four dollars and fifty cents ~~(\$67.50)-(\$74.50)~~.

16 (b) ACI International 350-06, "Environmental Engineering Concrete Structures." ACI  
17 International 350-06, "Environmental Engineering Concrete Structures" is hereby  
18 incorporated by reference including subsequent amendments and editions. A copy may be  
19 obtained from ACI International, P.O. Box 9094, Farmington Hills, Michigan 48333-  
20 9094 International at  
21 <https://www.concrete.org/store/productdetail.aspx?ItemID=35006&Language=English&>  
22 [Units=US Units](https://www.concrete.org/store/productdetail.aspx?ItemID=35006&Language=English&) at a cost of one hundred ~~sixty six~~sixty six  
23 ~~eighty-one~~eighty-one dollars and fifty cents ~~(\$166.50)-(\$181.50)~~.

24 (c) American Petroleum Institute (API) Standard 570, "Piping Inspection Code: Inspection  
25 Repair, Alteration and Re-rating of In-Service Piping Systems." API Standard 570, "Piping  
26 Inspection Code: Inspection Repair, Alteration and Re-rating of In-Service Piping  
27 Systems" is hereby incorporated by reference including subsequent amendments and  
28 editions. A copy may be obtained from API Publications, 15 Inverness Way East, M/S  
29 C303B, Englewood, Colorado 80112 5776 Publications at  
30 [https://www.techstreet.com/api/standards/api-570?product\\_id=1910713](https://www.techstreet.com/api/standards/api-570?product_id=1910713) at a cost of one  
31 hundred ~~eighty-five~~eighty-five dollars ~~(\$108.00)-(\$185.00)~~.

32 (d) API Recommended Practice 1110, "Recommended Practice for the Pressure Testing of  
33 Liquid Petroleum Pipelines." API Recommended Practice 1110, "Recommended Practice  
34 for the Pressure Testing of Liquid Petroleum Pipelines" is hereby incorporated by reference  
35 including subsequent amendments and editions. A copy may be obtained from API  
36 Publications, 15 Inverness Way East, M/S C303B, Englewood, Colorado 80112-

- 1 ~~5776~~Publications at [https://www.techstreet.com/api/standards/api-rp-1110-](https://www.techstreet.com/api/standards/api-rp-1110-r2018?product_id=1852115)  
2 ~~r2018?product\_id=1852115~~ at a cost of ~~fifty five~~~~ninety-eight~~ dollars (~~\$55.00~~),(~~\$98.00~~).
- 3 (e) API Recommended Practice 1615, "Installation of Underground Petroleum Storage  
4 Systems." API Recommended Practice 1615, "Installation of Underground Hazardous  
5 Substances or Petroleum Storage Systems" is hereby incorporated by reference including  
6 subsequent amendments and editions. A copy may be obtained from API ~~Publications, 15~~  
7 ~~Inverness Way East, M/S C303B, Englewood, Colorado 80112~~ ~~5776~~Publications at  
8 [https://www.techstreet.com/api/standards/api-rp-1615?product\\_id=1780646](https://www.techstreet.com/api/standards/api-rp-1615?product_id=1780646) at a cost of  
9 ~~one~~two hundred ~~eight~~~~eleven~~ dollars (~~\$108.00~~),(~~\$211.00~~).
- 10 (f) API Recommended Practice 1621, "Bulk Liquid Stock Control at Retail Outlets." API  
11 Recommended Practice 1621, "Bulk Liquid Stock Control at Retail Outlets" is hereby  
12 incorporated by reference including subsequent amendments and editions. A copy may be  
13 obtained from API ~~Publications, 15 Inverness Way East, M/S C303B, Englewood,~~  
14 ~~Colorado 80112~~ ~~5776~~Publications at [https://www.techstreet.com/api/standards/api-rp-](https://www.techstreet.com/api/standards/api-rp-1621-r2012?product_id=14616)  
15 ~~1621-r2012?product\_id=14616~~ at a cost of ~~seventy three~~~~eighty-five~~ dollars  
16 (~~\$73.00~~),(~~\$85.00~~).
- 17 (g) API Recommended Practice 1631, "Interior Lining and Periodic Inspection of  
18 Underground Storage Tanks." API Recommended Practice 1631, "Interior Lining and  
19 Periodic Inspection of Underground Storage Tanks" is hereby incorporated by reference  
20 including subsequent amendments and editions. A copy may be obtained from API  
21 ~~Publications, 15 Inverness Way East, M/S C303B, Englewood, Colorado 80112~~ ~~5776~~  
22 ~~Publications~~ at [https://www.techstreet.com/api/standards/api-rp-1631?product\\_id=913787](https://www.techstreet.com/api/standards/api-rp-1631?product_id=913787)  
23 at a cost of ~~seventy six~~~~eighty-nine~~ dollars (~~\$76.00~~),(~~\$89.00~~).
- 24 (h) API Recommended Practice 1637, "Using the API Color Symbol System to Mark  
25 Equipment and Vehicles for Product Identification at ~~Service Stations~~Gasoline Dispensing  
26 Facilities and Distribution Terminals." API Recommended Practice 1637, "Using the API  
27 Color Symbol System to Mark Equipment and Vehicles for Product Identification at  
28 ~~Service Stations~~Gasoline Dispensing Facilities and Distribution Terminals" is hereby  
29 incorporated by reference including subsequent amendments and editions. A copy may be  
30 obtained from API ~~Publications, 15 Inverness Way East, M/S C303B, Englewood,~~  
31 ~~Colorado 80112~~ ~~5776~~Publications at [https://www.techstreet.com/api/standards/api-rp-](https://www.techstreet.com/api/standards/api-rp-1637-r2012?product_id=1274225)  
32 ~~1637-r2012?product\_id=1274225~~ at a cost of ~~fifty nine~~~~sixty-eight~~ dollars  
33 (~~\$59.00~~),(~~\$68.00~~).
- 34 (i) American Society of Mechanical Engineers (ASME) International: B31.4-2006, "~~2006~~  
35 ~~Pipeline~~"Pipeline Transportation Systems for ~~Liquid Hydrocarbons~~Liquids and ~~other~~  
36 ~~Liquids.~~"Slurries." ASME International: B31.4-2006, "~~2006~~ ~~Pipeline~~"Pipeline  
37 Transportation Systems for ~~Liquid Hydrocarbons~~Liquids and ~~other Liquids.~~"Slurries" is

1 hereby incorporated by reference including subsequent amendments and editions. A copy  
2 may be obtained from ASME, ~~22 Law Drive, Box 2900, Fairfield, NJ 07007-2900~~ASME  
3 at [https://www.asme.org/codes-standards/find-codes-standards/b31-4-pipeline-](https://www.asme.org/codes-standards/find-codes-standards/b31-4-pipeline-transportation-systems-liquids-slurries)  
4 [transportation-systems-liquids-slurries](https://www.asme.org/codes-standards/find-codes-standards/b31-4-pipeline-transportation-systems-liquids-slurries) at a cost of ~~one~~two hundred ~~twenty nine~~fifteen  
5 dollars (~~\$129.00~~)-(\$215.00).

6 (j) National Fire Protection Association (NFPA) 30, "Flammable and Combustible Liquids  
7 Code." NFPA 30, "Flammable and Combustible Liquids Code" is hereby incorporated by  
8 reference including subsequent amendments and editions. A copy may be obtained from  
9 National Fire Protection Association, ~~1 Batterymarch Park, Quincy, Massachusetts 02169-~~  
10 ~~7471~~Association at [https://catalog.nfpa.org/NFPA-30-Flammable-and-Combustible-](https://catalog.nfpa.org/NFPA-30-Flammable-and-Combustible-Liquids-Code-P1164.aspx?icid=D729)  
11 [Liquids-Code-P1164.aspx?icid=D729](https://catalog.nfpa.org/NFPA-30-Flammable-and-Combustible-Liquids-Code-P1164.aspx?icid=D729) at a cost of ~~forty two dollars and fifty cents~~  
12 (~~\$42.50~~)-seventy-five dollars (\$75.00).

13 (k) NFPA 30A, "~~Automotive and Marine Service Station Code.~~""Code for Motor Fuel  
14 Dispensing Facilities and Repair Garages." NFPA 30A, "~~Automotive and Marine Service~~  
15 ~~Station Code.~~""Code for Motor Fuel Dispensing Facilities and Repair Garages" is hereby  
16 incorporated by reference including subsequent amendments and editions. A copy may be  
17 obtained from National Fire Protection Association, ~~1 Batterymarch Park, Quincy,~~  
18 ~~Massachusetts 02169-7471~~Association at [https://catalog.nfpa.org/NFPA-30A-Code-for-](https://catalog.nfpa.org/NFPA-30A-Code-for-Motor-Fuel-Dispensing-Facilities-and-Repair-Garages-P1165.aspx?icid=D729)  
19 [Motor-Fuel-Dispensing-Facilities-and-Repair-Garages-P1165.aspx?icid=D729](https://catalog.nfpa.org/NFPA-30A-Code-for-Motor-Fuel-Dispensing-Facilities-and-Repair-Garages-P1165.aspx?icid=D729) at a cost of  
20 ~~thirty three~~fifty dollars and fifty cents (~~\$33.50~~)-(\$50.50).

21 (l) NFPA 329, "~~Handling Underground~~"Recommended Practice for Handling Releases of  
22 Flammable and Combustible Liquids."Liquids and Gases." NFPA 329, "~~Handling~~  
23 ~~Underground~~"Recommended Practice for Handling Releases of Flammable and  
24 Combustible Liquids."Liquids and Gases" is hereby incorporated by reference including  
25 subsequent amendments and editions. A copy may be obtained from National Fire  
26 Protection Association, ~~1 Batterymarch Park, Quincy, Massachusetts 02169-7471~~  
27 Association at [https://catalog.nfpa.org/NFPA-329-Recommended-Practice-for-Handling-](https://catalog.nfpa.org/NFPA-329-Recommended-Practice-for-Handling-Releases-of-Flammable-and-Combustible-Liquids-and-Gases-P1287.aspx?icid=D729)  
28 [Releases-of-Flammable-and-Combustible-Liquids-and-Gases-P1287.aspx?icid=D729](https://catalog.nfpa.org/NFPA-329-Recommended-Practice-for-Handling-Releases-of-Flammable-and-Combustible-Liquids-and-Gases-P1287.aspx?icid=D729) at a  
29 cost of ~~thirty three~~fifty dollars and fifty cents (~~\$33.50~~)-(\$50.50).

30 (m) PEI: PEI/RP100, "Recommended Practice for Installation of Underground Liquid Storage  
31 Systems." PEI: PEI/RP100, "Recommended Practice for Installation of Underground  
32 Liquid Storage Systems" is hereby incorporated by reference including subsequent  
33 amendments and editions. A copy may be obtained from Petroleum Equipment Institute  
34 at [https://www.techstreet.com/pei/standards/pei-rp100-](https://www.techstreet.com/pei/standards/pei-rp100-17?gateway_code=pei&product_id=1945712)  
35 [17?gateway\\_code=pei&product\\_id=1945712](https://www.techstreet.com/pei/standards/pei-rp100-17?gateway_code=pei&product_id=1945712) at a cost of one hundred ninety-five dollars  
36 (\$195.00).

1 (n) PEI: PEI/RP1200, "Recommended Practice for Testing and Verification of Spill, Overfill,  
2 Leak Detection and Secondary Containment Equipment at UST Facilities." PEI:  
3 PEI/RP1200, "Recommended Practice for Testing and Verification of Spill, Overfill, Leak  
4 Detection and Secondary Containment Equipment at UST Facilities" is hereby  
5 incorporated by reference including subsequent amendments and editions. A copy may be  
6 obtained from Petroleum Equipment Institute at  
7 [https://www.techstreet.com/pei/standards/pei-rp1200-17?product\\_id=1952629](https://www.techstreet.com/pei/standards/pei-rp1200-17?product_id=1952629) at a cost of  
8 one hundred ninety-five dollars (\$195.00).

9 ~~(n)~~(o) Steel Tank Institute (STI) ACT 100 F894, "Specifications for External Corrosion  
10 Protection of FRP Composite Steel Underground Storage Tanks." Steel Tank Institute  
11 (STI) ACT 100 F894, "Specifications for External Corrosion Protection of FRP Composite  
12 Steel Underground Storage Tanks" is hereby incorporated by reference including  
13 subsequent amendments and editions. A copy may be obtained from Steel Tank Institute,  
14 at ~~570 Oakwood Road, Lake Zurich, Illinois 60047~~  
15 [https://www.steeltank.com/Publications/STISPFASore/ProductDetail/tabid/502/rv](https://www.steeltank.com/Publications/STISPFASore/ProductDetail/tabid/502/rvdsfpid/act-100-specification-for-external-corrosion-protection-of-frp-composite-steel-usts-f894-2/Default.aspx)  
16 [dsfpid/act-100-specification-for-external-corrosion-protection-of-frp-composite-steel-](https://www.steeltank.com/Publications/STISPFASore/ProductDetail/tabid/502/rvdsfpid/act-100-specification-for-external-corrosion-protection-of-frp-composite-steel-usts-f894-2/Default.aspx)  
17 [usts-f894-2/Default.aspx](https://www.steeltank.com/Publications/STISPFASore/ProductDetail/tabid/502/rvdsfpid/act-100-specification-for-external-corrosion-protection-of-frp-composite-steel-usts-f894-2/Default.aspx) at a cost of ~~fiftysixty~~ dollars ~~(\$50.00);~~(\$60.00).

18 ~~(n)~~(p) STI ACT 100-U F961, "Specifications for External Corrosion Protection of Composite  
19 Steel Underground Storage Tanks." STI ACT 100-U F961, "Specifications for External  
20 Corrosion Protection of Composite Steel Underground Storage Tanks" is hereby  
21 incorporated by reference including subsequent amendments and editions. A copy may be  
22 obtained from Steel Tank ~~Institute, 570 Oakwood Road, Lake Zurich, Illinois 60047~~  
23 Institute at  
24 [https://www.steeltank.com/Publications/STISPFASore/ProductDetail/tabid/502/rvdsfpid/](https://www.steeltank.com/Publications/STISPFASore/ProductDetail/tabid/502/rvdsfpid/act-100u-specification-for-external-corrosion-protection-of-composite-steel-underground-storage-tanks-f961-250/Default.aspx)  
25 [act-100u-specification-for-external-corrosion-protection-of-composite-steel-](https://www.steeltank.com/Publications/STISPFASore/ProductDetail/tabid/502/rvdsfpid/act-100u-specification-for-external-corrosion-protection-of-composite-steel-underground-storage-tanks-f961-250/Default.aspx)  
26 [underground-storage-tanks-f961-250/Default.aspx](https://www.steeltank.com/Publications/STISPFASore/ProductDetail/tabid/502/rvdsfpid/act-100u-specification-for-external-corrosion-protection-of-composite-steel-underground-storage-tanks-f961-250/Default.aspx) at a cost of ~~fiftysixty~~ dollars  
27 ~~(\$50.00);~~(\$60.00).

28 ~~(n)~~(q) STI ~~922,F922,~~ "Specifications for Permatank." STI ~~922,F922,~~ "Specifications for  
29 Permatank" is hereby incorporated by reference including subsequent amendments and  
30 editions. A copy may be obtained from Steel Tank ~~Institute, 570 Oakwood Road, Lake~~  
31 ~~Zurich, Illinois 60047~~Institute at  
32 [https://www.steeltank.com/Publications/STISPFASore/ProductDetail/tabid/502/rvdsfpid/](https://www.steeltank.com/Publications/STISPFASore/ProductDetail/tabid/502/rvdsfpid/permatank-f922-specification-for-permatank-231/Default.aspx)  
33 [permatank-f922-specification-for-permatank-231/Default.aspx](https://www.steeltank.com/Publications/STISPFASore/ProductDetail/tabid/502/rvdsfpid/permatank-f922-specification-for-permatank-231/Default.aspx) at a cost of ~~fiftysixty~~  
34 dollars ~~(\$50.00);~~(\$60.00).

35 ~~(n)~~(r) Underwriters UL 58, "Steel Underground tanks for Flammable and Combustible Liquids."  
36 UL 58, "Steel Underground tanks for Flammable and Combustible Liquids" is hereby  
37 incorporated by reference including subsequent amendments and editions. A copy may be

1 obtained from Underwriters Laboratories, 333 Pfingsten Road, Northbrook, Illinois 60062-  
2 2096 Laboratories at  
3 <https://www.shopulstandards.com/PurchaseProduct.aspx?UniqueKey=33920> at a cost of  
4 ~~four~~five hundred ~~forty~~five and two dollars (~~\$445.00~~)-(\$502.00).

5 (s) UL 567, "~~Pipe~~Standard for Emergency Breakaway Fittings, Swivel Connectors and Pipe-  
6 Connection Fittings for Petroleum Products and LP Gas." UL 567, "~~Pipe~~Standard for  
7 Emergency Breakaway Fittings, Swivel Connectors and Pipe-Connection Fittings  
8 Petroleum Products and LP Gas" is hereby incorporated by reference including subsequent  
9 amendments and editions. A copy may be obtained from Underwriters Laboratories, 333  
10 Pfingsten Road, Northbrook, Illinois 60062-2096 Laboratories at  
11 <https://www.shopulstandards.com/PurchaseProduct.aspx?UniqueKey=27791> at a cost of  
12 eight hundred ~~eighty~~five ~~ninety~~seven dollars (~~\$885.00~~)-(\$897.00).

13 (t) UL 567A, "Standard for Emergency Breakaway Fittings, Swivel Connectors and Pipe-  
14 Connection Fittings for Gasoline and Gasoline/Ethanol Blends with Nominal Ethanol  
15 Concentrations up to 85 Percent (E0 – E85)." UL 567A, "Standard for Emergency  
16 Breakaway Fittings, Swivel Connectors and Pipe-Connection Fittings for Gasoline and  
17 Gasoline/Ethanol Blends with Nominal Ethanol Concentrations up to 85 Percent (E0 –  
18 E85)" is hereby incorporated by reference including subsequent amendments and editions.  
19 A copy may be obtained from Underwriters Laboratories at  
20 <https://www.shopulstandards.com/PurchaseProduct.aspx?UniqueKey=29197> at a cost of  
21 six hundred thirty-one dollars (\$631.00).

22 (u) UL 567B, "Standard for Emergency Breakaway Fittings, Swivel Connectors and Pipe-  
23 Connection Fittings for Diesel Fuel, Biodiesel Fuel, Diesel/Biodiesel Blends with Nominal  
24 Biodiesel Concentrations up to 20 Percent (B20), Kerosene, and Fuel Oil." UL 567B,  
25 "Standard for Emergency Breakaway Fittings, Swivel Connectors and Pipe-Connection  
26 Fittings for Diesel Fuel, Biodiesel Fuel, Diesel/Biodiesel Blends with Nominal Biodiesel  
27 Concentrations up to 20 Percent (B20), Kerosene, and Fuel Oil" is hereby incorporated by  
28 reference including subsequent amendments and editions. A copy may be obtained from  
29 Underwriters Laboratories at  
30 <https://www.shopulstandards.com/PurchaseProduct.aspx?UniqueKey=29195> at a cost of  
31 four hundred and two dollars (\$402.00).

32 (s)(v) UL 971, "~~Nonmetallic~~Standard for Nonmetallic Underground Piping for Flammable  
33 Liquids;"Liquids." UL 971, "Standard for Nonmetallic Underground Piping for Flammable  
34 Liquids" is hereby incorporated by reference including subsequent amendments and  
35 editions. A copy may be obtained from UL at  
36 <https://www.shopulstandards.com/PurchaseProduct.aspx?UniqueKey=7936> at a cost of  
37 four hundred and two dollars (\$402.00).

1 (w) UL 971A, "Outline of Investigation for Metallic Underground Fuel Pipe." UL 971A,  
2 "Outline of Investigation for Metallic Underground Fuel Pipe" is hereby incorporated by  
3 reference including subsequent amendments and editions. A copy may be obtained from  
4 UL at <https://www.shopulstandards.com/PurchaseProduct.aspx?UniqueKey=15373> at a  
5 cost of two hundred and twenty-five dollars (\$225.00).

6 ~~(+)(x)~~ UL 1316, "~~Glass Fiber Reinforced Plastic~~"Standard for Fibre Reinforced Underground  
7 Storage Tanks for Petroleum Products, Alcohols, Flammable and Alcohol Gasoline  
8 Mixtures."Combustible Liquids." UL 1316, "~~Glass Fiber Reinforced Plastic~~"Standard for  
9 Fibre Reinforced Underground Storage Tanks for Petroleum Products,  
10 Alcohols, Flammable and Alcohol Gasoline Mixtures."Combustible Liquids" is hereby  
11 incorporated by reference including subsequent amendments and editions. A copy may be  
12 obtained from Underwriters Laboratories, 333 Pfingsten Road, Northbrook, Illinois 60062-  
13 2096 Laboratories at  
14 <https://www.shopulstandards.com/PurchaseProduct.aspx?UniqueKey=35172> at a cost of  
15 four hundred ~~forty five~~ and two dollars (\$445.00); ~~or~~ (\$402.00).

16 ~~(+)(y)~~ UL 1746, "External Corrosion Protection Systems for Steel Underground Storage Tanks."  
17 UL 1746, "External Corrosion Protection Systems for Steel Underground Storage Tanks"  
18 is hereby incorporated by reference including subsequent amendments and editions. A  
19 copy may be obtained from Underwriters Laboratories, 333 Pfingsten Road, Northbrook,  
20 Illinois 60062-2096 Laboratories at  
21 <https://www.shopulstandards.com/PurchaseProduct.aspx?UniqueKey=15742> at a cost of  
22 ~~eight nine hundred eighty five~~ ninety-eight dollars (\$885.00); ~~or~~ (\$998.00); and

23 (2) Other appropriate codes or standards applicable at the time of UST system installation or  
24 replacement may be used provided they are developed by ACI, American National Standards  
25 Institute (ANSI), API, ASME, ASTM, NFPA, National Leak Prevention Association (NLPA), PEI,  
26 STI and UL.

27  
28 *History Note:* Authority G.S. 143-215.3(a)(15); 143B-282(a)(2)(h);  
29 Eff. November 1, 2007; 2007;  
30 Readopted Eff. XXXX 1, 2021.